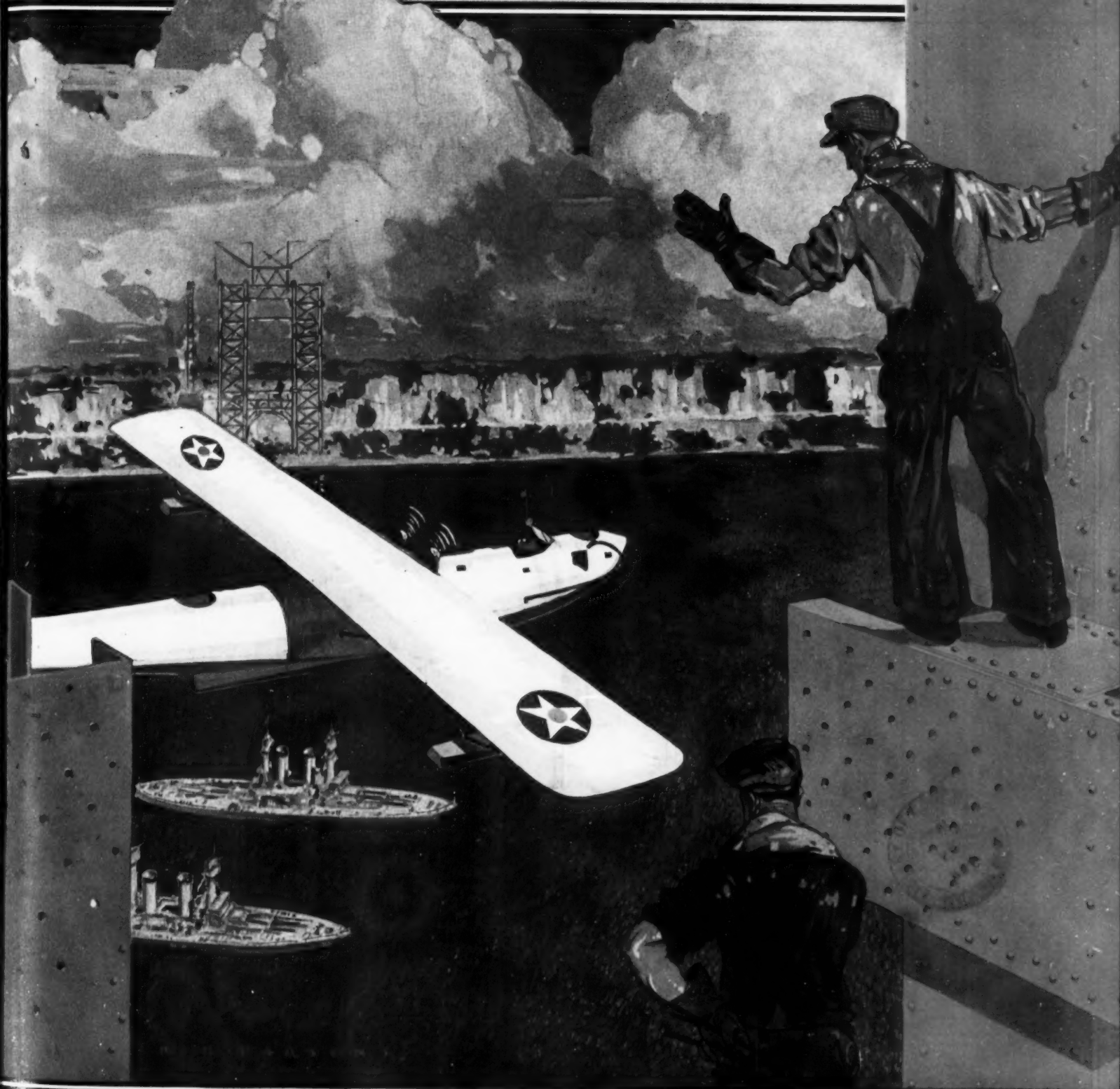


The

May, 1929

# YOUTH'S COMPANION



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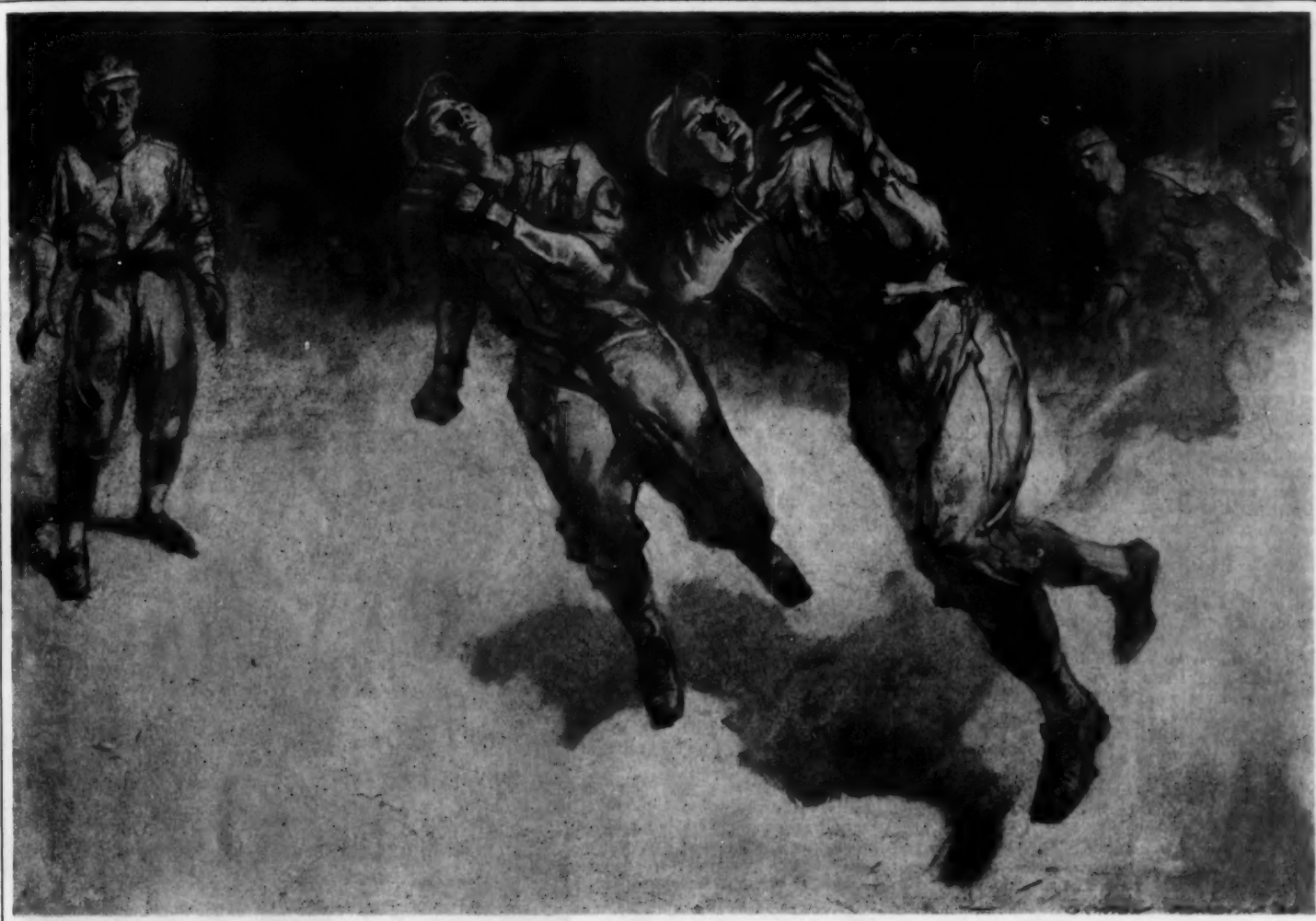


# THE YOUTH'S COMPANION

VOLUME 103

MAY, 1929

NUMBER 5



"I've got it," shouted Charlie Dawson. . . . "Mine," yelled Addie Schulz. . . . The great crowd's shouted excitement changed suddenly to a roar of warning, but it was too late

[PAGE 277]

## Diamond Cut Diamond

By Jonathan Brooks

ILLUSTRATED BY GRATTAN CONDON

**P**AINTING the lily or gilding refined gold might seem to be useful work compared with telling the story of Charlie Dawson. Any schoolboy can tell you how many home runs he has hit, or describe his base-stealing record for you. Any of the millions of fans who have seen him ramble over shortstop territory can give you a vivid account of his prowess. But does anybody know the real story of Charlie Dawson?

I do not think so, and that is why I am setting it down. I am convinced that people do not really know his actual life. For instance, everybody knows how he was discovered. Mike O'Brien, manager of the Royals, was walking down the street in his home town one day and saw some boys kicking a football. Mike was sorely in need of a shortstop. He hadn't had a shortstop any better than a batbag for years, and he suffered headaches continually from watching recruits who could not go back for 'em, or come up fast, or cover ground to the right, or throw. Hit? He'd long since quit worrying whether his shortstop could hit. All he wanted was a boy who could put up more defense between second and third than thin air offers.

At any rate, he was constantly on the lookout for anything in human form that resembled a shortstop. This day on which he was walking down the street was

late in the fall, long after the baseball season had ended. You would think a big-league manager might take a rest from baseball after seven months' daily fretting and stewing. But not a manager needing a shortstop as badly as Mike O'Brien needed one.

But this is old stuff. The only reason I'm mentioning this incident at all is that none of the recitals of the familiar story have set forth Charlie Dawson's end of it.

You all know what Mike did, and what Mike said, but—well, I am going to quote Mike himself so that you will know, possibly for the first time, what Charlie Dawson did and said.

"I'm rollin' along on Third Street," said Mike O'Brien, "and a bunch of boys are kickin' a football back and forth. Not a regular game, see, but just kickin' the ball. I keep an eye on 'em because mebbe one of 'em might use me for a target, see? Well,

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I'm watchin', and somebody kicks the ball high up over the telephone wires, and 'way down the block. Then there's a kid runs off the sidewalk who's been walking ahead of me—tall, thin kid with wide shoulders. He's been carryin' a basket of groceries, see, but he drops 'em. Eggs bust all over.

"Out he goes into the street," Mike continued, "on the dead run, goin' in the same general direction as the ball, which has got a wind helpin' it. Just like goin' to a fire, he was, with his head up in the air like an old horse. I think he can't make it, and I'm bettin' myself three to one I'm right, when he sticks up two long skinny hands in front of him—and the ball comes down over his head from behind 'im and is snagged right into them big paws! Yeah, just like that. And he slows down to a stop, turns around, takes that old ball in his right hand and shoots it back like a spear, against the wind, as far as the other boy had kicked it! On a line. No wiggle or wobble on it.

"Man, if that had been a foul back of third base, and some guy'd tried to score after the ketch, he'd have been out as far from here to Kit Carson. A ketch and a peg, see? Well, I'm pop-eyed, and before I know it I'm stumblin' over the kid's basket of groceries.

The Long  
Story  
Complete  
in  
This Issue

"Hey, grandpaw, look where y'r goin'," the kid yells.

"At's my basket," he says.

"Kid," I said, "ever play any baseball?"

"Yuh mean football, don't yuh?" he said.

"No, I mean baseball," I said.

"Sure. It's an easy game; ask me sumpin hard," he said. "Like football. And I play football too. You one of these college scouts?" he said.

"Fresh? Say, celery ain't got a thing on this kid. But I keep my temper and tell him no, I'm no college scout, nor anything else college. 'Only,' I said, 'I asked you a civil question: did you ever play any baseball?'"

"Listen," he said; "I thought you was kidding me. Sure, I play ball. I'm the pitcher and the captain of the Rocky Ripple Tigers. We ain't lost a game for two years. Everybody around here knows us, and I thought you was kiddin' me, see? But I can play football, and some college scouts been after me."

"My gosh," I said, "have they got scouts out, too?"

"Then you must be one of these here league scouts," he said.

"Boy, y'r certny up to now," I said. "Where do you work?"

"Elite Grocery," he said.

"What's y'r name?" I said.

"Charlie Dawson, and if yuh want my picture for the paper," he said, "y'll have to bring y'r own photographer."

And he grabs his basket, winks at me like the smart guy he thinks he is, and beats it off down the street. I just stood and looked after him, still pop-eyed over that ketch and peg he'd made. Ain't seen a shortstop take one over his head like that, goin' with the ball, and whip it back, since, since, well—remember when Donnie Bush was good?

"But he says he's a pitcher; and there's sumpin wrong with that. I never seen a pitcher yet that could ketch anything comin' straight at him to his face, let alone over his shoulder, goin' away from it. So I go around in a daze for about a week, and then I ask some questions, and all the local fans tell me this Dawson is hot. So I stop in at the Elite Grocery and ask for him—and whaddayuh know? He's flew the coop!"

"Some college come after him, Mr. O'Brien," says Kelly, the groceryman. "He quit and beat it, right off."

"Which one?" I said.

"Don't know," says Kelly.

"His folks know?" I said.

"Ain't got any folks, far as I know," Kelly says.

"Where is this college?" I said.

"Search me," says Kelly.

And so this Charlie Dawson disappears on me, just like that! And I'm sick, because I know blame well this kid's a shortstop, although Kelly tells me he is a star pitcher and a home-run hitter. "That boy," he says, "averages a home run a little better than every two games. No long high flies, either. He smacks 'em square, on a line, and rides 'em out between the center fielder and the other two guys. One sweet smacker, that boy; and no cow-tailer, either," he says.

"That's a new one on me. Whaddayuh mean, cow-tailer?"

"Why, a guy that gets a-hold of the bat away down by the end and swings it like he was tryin' to throw a bull outta the yard," says Kelly. "He don't wind up and wallop—he just meets 'em clean and sharp, and, man, they ride! And pitch—say, y'oughta see that boy lay 'em in there!"

**B**UT that don't interest me any. He's a shortstopper, I know that! And if he can hit—but then, he's disappeared on me. So I give up. And it's two years and a little more before I lay eyes on him again! Then we're on a trip and have got a day off, and I've had eight or eleven letters about a college pitcher name of Burton—Johnny Burton—who's a whiz, by all these letter-writers. So I look him up. Little college name of Albert. They gotta game. And I watch 'em. Well, this Burton, believe it or not, is no less'n Charlie Dawson, pitchin' like a fool. He goes good—fast ball, mostly, and an outshoot as wide as a dental ad's grin. Wins his game. So after it's over I go around to the gym and see him.

"Well, if it ain't old foxy grandpaw himself," says this kid.

"Hello, Burton," I said. "Thought it was football yuh wanted to play."

"Well, ain't I been playin' it? All-state halfback two years," he said. "Scored in every game. Do all the kickin' and passin', and triple-threat stuff too," he says.

"Fine," I said, "and y'r the same sweet, modest little violet, too, ain't yuh?"

"Why hide y'r light under a bushel?" he said. "Make 'em use a piano box to cover yuh, if y'r gonna get blotted out at all."

"Still play baseball, too, I see," I said.

"Oh, a little, now and then. Do all the pitchin' and most of the hittin' this club does."

"So I see," I said. "That's what interests me. You was right that day when you sized me up as a league scout," I said. "Only I'm not exactly a scout, either. My name is O'Brien, and I'm with the Royals."

"Great gosh," he says, "Mike O'Brien? Listen, I know all about yuh, Mr. O'Brien. But y'r not lookin' me over—yuh don't need any pitchers, with Reagan, and Dooley, and Himer, and Fox, and Weyman. When I sign, I'm gonna sign where I'll be 'preciated."

"Fair enough," I said, "if yuh sign."

"Whaddayuh mean?" he said.

"I mean the woods is full of tall guys that can throw a fast ball straight and a wide outshoot," I said.

"Is 'at so?" he said. "Well, Mr. O'Brien, I'll just show yuh sumpin. I'll just sign up with a club in your own league one of these days, when I finish college, and then I'll get a kick outa beatin' y'r club to a whisper."

"Don't make me laugh, boy," I said. "Even my pitchers lam a straight ball outa the lot, and I ain't got a sucker for a curve ball on my payroll."

"All right, watch," he said.

"But on the other hand," I said, "I am kinda interested in y'r ballplayin'. When yuh get through college, or get kicked out, which yuh most likely will for bein' so fresh, lemme hear from yuh." And I turned around and walked away from him.

"Well, the rest of it you know as well as I do. It's been in the papers time and again. About two months later I get a letter from him, and he says the college people have invited him not to come back. What he wants now is a chance to show the world he's a great pitcher, a reg'lar Rusie, Waddell and Walsh all rolled into one. So I write and tell him he can join up with us here at home, if he wants, and I'll look him over. And when he comes swellin' in like he owns the place I give him a stingy little contract and tie him up, without arguin' any at all about him bein' a pitcher. And that's how Charlie Dawson come into captivity."

As a postscript, O'Brien adds invariably when telling the story that Dawson was without doubt the freshest, nerviest youngster that ever broke into his or any other league. Sitting on him, O'Brien declares, never did any good, because the kid popped up again like a jack-in-the-box, on springs. "Yuh had to hold him down," says Mike.

It is not a part of the usual record that Dawson was so fresh before he broke into the majors. Nor, despite the fact he has been known always in the league as an aggressive, scrappy player, is it known generally that he always spoiled for a fight. Even when still a kid, unknown to the baseball world, he battled with his bread and butter when he had nothing else better deserving of a fight. That, however, is quoting Mike O'Brien again.

Before the first summer was over, young Dawson had whipped three of the Royals, been whipped by two others, and, although batted out of the box three times when essaying to finish games for other members of the pitching staff, was constantly begging for a chance to start a game in the box. These things should show that he was, above all, a scrapper.

## CHAPTER TWO

### Good, But Not at Pitching

**W**ELL, kid, are yuh about convinced I was right?"

O'Brien asked Dawson, one evening the next spring, at a training camp down in Texas.

"Only because these other guys are all wrong," snaps Dawson. "Who's boob enough to argue with a manager?"

"Nobody, but Charlie Dawson," O'Brien laughs. This man O'Brien, it should be said, was a diplomat as well as a fighter. He knew how and when to keep his head. I had always admired him, from a distance, in spite of his rough training and uncouth ways. And now, trav-

eling with the Royals for the first time, I had a chance to become acquainted with him. My paper had assigned me to the Royals for the season, and I was with them in that hectic year in which Charlie Dawson—But that runs ahead of the story.

"I'm not arguin' with yuh," protested Dawson. "If you think this is an argument, you should get me into a real one."

"Yeah, I saw some of y'r arguments last summer," O'Brien replied. "And two or three of the boys out-argued yuh some, hey? But, just the same, arguin' is the best thing yuh do. Y'r better at it than—"

"Pitchin', I suppose," said Dawson, angrily.

"I told yuh back there at y'r college about y'r pitchin', didn't I?"

"Yeah, but y'r still wrong," Dawson retorted. "Plenty of managers would be glad to have me, and—"

"After yuh were batted outa the box three times last summer? No," said O'Brien.

"Well, then, turn me loose, if yuh think I can't play ball," muttered Dawson.

The boy was discouraged. He had been working in the box during hitting practice, three days in a row, and even though the batters were not yet keyed up, and he had been working a week longer to get in shape, they were hitting his fast ball in all directions—hitting it hard. I thought he looked like a good pitching prospect, but I did not know as much baseball then as I know now. His fast ball had whiz, and he got it away quickly without much windup. Too, his curve ball broke almost as sharply as the curves of some of the



All the pent-up, smothered resentment that Addie must have suppressed broke loose. He swung a hard right at Charlie's head and crashed him just above the ear [PAGE 278]



veterans. But he was not registering well as a pitcher. "Who said I thought yuh couldn't play ball?" demanded O'Brien.

"You just said—"

"I said y'r not there as a thrower," O'Brien declared. "But as a ballplayer, yuh may get by—when yuh get it into y'r fool head there's a lotta people been workin' at the baseball business for years who may know more about it than you do."

"Mebbe so—but not about me," argued Dawson. "Listen, Mr. O'Brien; gimme a chance as a pitcher. Just one real chance—and then if I don't get over I'll play first base for yuh, or ketch, or work as bat boy. I can play first, or ketch, but, gosh, Mr. O'Brien, I'd sure like to make good in the box."

It was the only time in my long acquaintance with Charlie Dawson that I saw him pleading for himself. Usually he got what he wanted by demanding it, or bluffing for or even fighting for it.

"Is that a bet?" demanded O'Brien, sharply. "Y'll live up to it, hey?"

"Sure I will, and I'll make good, too," Dawson declared, stubbornly.

"Then y'r on," O'Brien snapped. "Tomorrow morning we'll have a game between the Regulars and the Yannigans, and you work the first four innings for the Regulars. That's fair, ain't it?"

"O. K.," agreed Dawson.

It really was more than fair. If O'Brien had wished to bear down on the boy, he could have put him in the box for the Yannigans to face the Royal regulars, and the Royals are a tough-hitting team. But he seemed confident of winning his bet and put Dawson in a spot where the boy had every advantage.

I saw the game next morning, of course. Charlie Dawson appeared with all the confidence in the world. Warming up, with the veteran George Owens as his catcher, he looked very impressive. Even remembering how confident O'Brien was that the boy could not deliver as a pitcher, and remembering my own faith in O'Brien's judgment, I still rather thought he could make the grade. The Yannigans were a misfit lot of recruits trying to win jobs with the Royals. But then O'Brien had taken no pains with his recruiting except among candidates for shortstop. He had half a dozen young-

sters working at that position, and he had picked the best his scouts could find. But the rest of his regular lineup was strong, and he had not worried over successors to any of his other players. A ball club that can finish second with virtually no shortstop at all need not worry over anything except the filling of that position. That was O'Brien's opinion. So the Yannigans were a misfit lot. Two of their outfielders, in fact, were pitchers; and their first baseman was a veteran outfielder from the Regulars who had been carried three years as a pinch hitter.

These things are set down merely to show that Charlie Dawson, the cocky, quarrelsome youngster, had a fair chance to make good. He struck out the first man to face him, and then he turned toward the Regulars' bench and laughed at Mike O'Brien.

"I only hope it don't whip him completely," O'Brien muttered. "But if he's really got any nerve, it won't hurt him."

Dawson started a strike over the plate for the second Yannigan, but the Yannigan hit it to left for a single. Dawson scowled, set his lips tighter, and put on more speed for the next hitter. This one doubled to center. Dawson put on more speed, mad clear through, and the next man singled. The next tripled, and only when the two outfielding pitchers came up to hit was the boy able to get the Yannigans out. The second inning was just as bad, and the third, worse.

"Hey, Mike," yelled Joyce, the regular shortstop, "give us a pitcher. We're running ourselves to death."

"I'll get yuh for that, yuh big stiff," growled Dawson at Joyce.

THIS was as the fourth inning began. It was not quite so bad as the first three, although the Yannigans did compile two more runs. Mike O'Brien had not said a word. Dawson had tried his best, but his best seemed to be nothing but a combination of temper and blind speed. At the end of the half Dawson took off his glove, threw it in the direction of the dressing-room, picked up a sweater and, his head down, started off the field.

"Hey, Dawson," yelled O'Brien, "work's not over."

"Heck, yuh don't want me around here any more," muttered Dawson, turning back shamefacedly to the bench.

"Only three ahead of yuh, and yuh might have to hit in y'r own turn," said O'Brien. "No use grabbin' a pinch hitter, with the score fourteen to three against us."

"Aw, don't rub it in; yuh said once I wasn't a pitcher," growled Dawson.

"Yeah, and y've proved it, now, hey?" O'Brien asked, quietly. Dawson only ducked his head. "Well, then, I'll tell yuh why, kid. Y've got all the stuff it takes to make a whale of a pitcher—speed, curves, everything. But y've not got the temperament. Yuh pitch like a pig in a lane—put y'r head down and try to bust through by main strength, see? It don't work. I've seen thousands like yuh. Not your fault. And yuh can't help it. Neither can I, nor any other manager, nor any ketcher. No use wastin' time on yuh, see?"

"All right, then, I'll beat it," Dawson muttered. He seemed to be broken-hearted.

"No yuh won't," snapped O'Brien. "That wasn't y'r bet."

"Well, whaddayuh want me to do? Take care of the water bucket?"

"No, just shut up and set here and do what I tell yuh," O'Brien ordered. And nothing more was said for about five minutes. The first two Regulars up had singled, and then Owens, the catcher, walked.

"Go on up there, now, and let's see yuh get a hold of one," ordered O'Brien, simply. "Yuh can do it, kid."

Surprised, Dawson looked at the old manager with a dazed expression in his eyes. He could hardly believe this expression of confidence. But he grasped a bat out of the row before the bench, finally, and scrambled up to the plate.

"Bring us in, Rocky Ripple," yelled Joyce, the Regular shortstopper, perched on third base. Dawson had frequently told of his doings with the old Tigers, back at home. But Joyce's remark, as you will presently see, was his second mistake of the day.

The taunt, following O'Brien's seeming confidence, roused all of Dawson's fighting spirit. He cut at the first ball and fouled it. Over-anxious, he almost offered at the second, a sweeping outshoot that went outside for a ball. Then, recovering his balance and some of his natural poise, he eyed the third carefully before taking a sharp, decisive swing at it. He met the ball squarely and drove it on a line between the Yannigan left and center fielders.

"Hitter," murmured Mike O'Brien, with a broad grin. "A natural, sure's yuh live." And then, resuming his serious expression, he watched Charlie Dawson trot around the bases, unhurried, to score a home run!

"Says I can't play ball?" demanded Charlie Dawson, aggressively, trotting up to the bench.

"Yeah?" muttered O'Brien, absently. "To the showers, kid. And don't eat much lunch. May have some work for yuh to do this afternoon, see?"

And Charlie Dawson, his youthful swagger back again on his broad shoulders, strode proudly in the direction of the shed that housed the baths and dressing-rooms. He had forgotten, almost at once, his disastrous failure as a pitcher.

That afternoon, approaching practice, he was almost unbearably overbearing.

"Any home-run hitting yuh want done, Mister O'Brien?" he demanded, cockily. "Arrange these bats for yuh? Need a fresh bucket of water?"

"What I don't need is a fresh young squirt talkin' too much," retorted O'Brien. "You go down there and see if yuh can stop grounders around shortstop without breakin' a leg. Wouldn't care about y'r leg, but I don't want any doctor bills."

Mike waddled up to the plate and began hitting grounders to the makeshift infield. He seemed to be paying no attention to what happened to these grounders. If Dawson's fumbling and booting of ground balls worried him, he displayed no trace of annoyance. Nor did he comment on the boy's rifle-like throwing to bases or the plate once he got his hands on the ball. But presently he began hitting Texas-league popflies just past the infielders, over their heads. Then he grinned, triumphantly.

"Look, will yuh?" he said to Owens, with him at the plate. "A natural, I tell yuh. He can go back and get 'em, over his shoulder. Just like he did with 'at foot-ball. Do that, an' throw an' hit—boy, we'll just naturally make him come up and go either way for ground balls. He's got ever' thing else, includin' the hardest. What say, George?"

"Umphumph," grunted Owens, snagging a hard-whipped throw to the plate from the boy, who had just caught a fly back of third base.

"If'n we got a shortstopper," mused O'Brien.

"Yeah," grunted Owens. "Boy! We'll get somewhere!"

### CHAPTER THREE

#### The Diamond Cutter

A DIAMOND in the rough, what I mean," said old Mike O'Brien, that night, as he sat in the lobby of the little Texas hotel, talking with us newspaper correspondents.

"Yeah, mebbe so, but rough diamonds sell by the bushel," grinned one of the writers.

"It's only when they've been cut and tested that you get any idea what they're worth," another added. "Figure in the cutting cost, and the overhead, and the time, and everything—"

"As a diamond cutter, I'm second to none," proclaimed Mike. "I find 'em and cut 'em, and it don't cost us much. And this boy is—"

"The freshest, meanest, ornery-est rat that ever came into the big time," said Joe Wiley, dean of the baseball writing crew with the Royals.

"A diamond in the rough," Mike continued. "I wanta get you guys to help me out in developing him, though."

[CONTINUED ON PAGE 268]



Charlie went down as if he had been struck with a mallet. Other players ran to separate them. They expected a fight.

# Fairchild—Air-Mapper

Little past thirty, he is called the biggest young man in the aviation industry. This article tells you why

By Earl Reeves



Sherman Fairchild, now little over thirty years old, is one of the most extraordinary geniuses that aviation has produced. Almost solely responsible for the great development of aerial photography, he is also the largest builder of cabin planes in the world, and a leader in the building of other types of air craft.

film through the camera on which they were working. One day word was received that a young inventor had been asked to have a look at the problem. The veteran experimenters were willing enough, but they were startled at sight of the "expert" who arrived from Oneonta next day. However, they let the youth prod into the mysteries of their problem. An order was an order.

## An Eye for the Army

Confident at last that he comprehended the problem fully, young Fairchild set out for home. He gazed into space while his brain raced, but he remembered to get out at Utica. He retrieved his car from a garage and drove as if in a daze. The car spluttered and died, gas tank empty. He left it there and plodded many miles. Then, as he turned in at the big white house set back amid the elms, quite suddenly he knew he

had what he had been searching for—the essential idea of the invention which would give the army a better eye.

He worked it out, and after a while Intelligence officers were scanning more complete views of enemy terrain. If what was a cabbage patch at high noon seemed to cast a shadow as the sun sank low in the sky, then that was marked down as a suspicious spot, to be probed with bomb or shell on the morrow. Many a giant battery from Bertha Krupp's big factory ceased to hammer the Allied lines, and many a munition dump went up in smoke, after that.

No one along all that ghastly line, I suspect, knew that this margin of gain toward ultimate victory had been

machines and dial telephones, and also such complicated apparatus as the "brass brain" which classifies the data of the United States Census Bureau, and which sorted out the records of the millions of young men who were registered under the Conscription Act.

"But he could scarcely drive a nail straight," his son declares; "I didn't inherit any mechanical tendency from him."

Nevertheless, young Fairchild grew up with a distinct mechanical tendency. It may be that his story begins, rightly, with that proud day on which he was given a camera. He took it apart. But he also put it back together again. That was the first of many cameras. They grew in his hands. He was like Lindbergh, who stepped up the gear ratio and speed of anything mechanical that came under his hand—except that for Fairchild it was better lenses, faster shutters, new processes.

In his shop there were a lathe and various kinds of tools. His experiments included the building of boats and other ventures; but always his interest swung back to photography. Soon he was entitled to an advanced degree in photographic chemistry.

His schooling was irregular. He was not robust. He had attended Harvard awhile. In Arizona, at the State University, he had studied engineering. He recalls early difficulties with spelling and such subjects as come under the general heading of liberal arts—but he plucked the heart out of science courses. He had completed no work for any kind of a degree at the time when prying his way into the war seemed to be the only thing worth while in life. And from the day when he succeeded in "joining up" he was too busy for formal schooling.

It was an invention of his for taking flashlight pictures of moving objects at night which had caused an official to suggest that he be called in on the army camera puzzle. He was "an ingenious lad"; there was just a chance that he might have an idea. He had the idea, as has been indicated; but after he had made the army camera workable he stood up in all the certainty of his twenty years and told the old-timers of the Signal Corps that the thing they were working with was crude and unreliable, and that he could build them a camera which would be fool-proof and automatic.

Oddly enough, they told him to do it.

Many months of labor and forty thousand dollars went into the perfection of the first Fairchild aerial camera.

The tough problem was this: A shutter was needed which would give an exposure of less than one-hundred-and-fiftieth of a second through a wide aperture. A bit of metal had to be started, moved a matter of inches, and stopped in that

IF a messenger had come galloping through the countryside to the little upstate New York village of Oneonta with a summons from General Pershing himself, the thrill could not have been much greater for Sherman Fairchild.

He was twenty. He had been trying to get into the war for months; first, into the Signal Corps—and the doctors would not let him; then, as a civilian—but so many were before him there.

And now the summons had come, not by blowing and lathered mount, as would have been the case in an earlier war, but by curt telegram.

By the tens and hundreds of thousands our men were being ferried to France in jazz-painted ships grouped into convoys, about which knife-thin destroyers raced with crazy abandon. They were being rushed, green, untried, to plug gaps in a line beyond which an enemy thundered and grew in might. The Allied line sagged—even cracked. The Channel ports were threatened—and Paris.

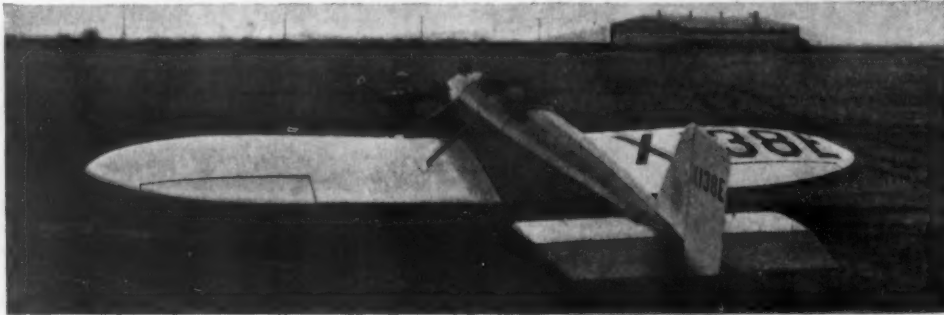
One thing that our army needed, and badly, was better eyes.

When it needed better ears, some may recall, young Major Edwin Armstrong, pupil of Professor Michael Pupin, invented a radio set so sensitive that it could overhear the dim whisperings of the low-power sending stations which flashed orders along the German line. We knew it later as the "super het."

That was new in warfare: so with the "eyes of the army," which had come to be located in soaring airplanes. But as men went up and up for a bird's-eye view of the enemy territory the art of camouflaging battery and dump and trench progressed so rapidly that the human eye could not distinguish them. The camera was used, but even the camera could be fooled; from ten thousand feet an airdrome might photograph as an innocent cabbage patch.

An "eye" was needed with which enemy territory could be recorded as it appeared from above at different hours of the day and in a whole series of photographs, so that miles of territory could be studied. The call for this kind of an eye went forward to Washington, and many experts went to work at the complex and difficult problem that must, somehow, be solved.

These men, old in the science of photography, worked with veterans of that Signal Corps which had found Sherman Fairchild unfit for service. Try as they would, they could not perfect a method which would feed the



The new light Fairchild training plane, the latest machine to be developed by the Fairchild plant. It weighs only 750 pounds and with an 80-horsepower engine turns out 80 m.p.h. and 21 miles to a gallon of gasoline—a gasoline consumption better than most automobiles. The plane costs less than \$5,000.

worked out in a boy's play-house workshop in a peaceful little village more than three thousand miles away.

That was a very complete shop for a boy to have; but it had started as a plaything, and Sherman Fairchild is one of these lucky mortals who play their way around the corner into manhood. His playthings became his job in life.

He was a rich man's son, and is today a multimillionaire.

George W. Fairchild had almost the traditional "log cabin" start in life. As a boy he was a "printer's devil." That is the bottom rung in the publishing ladder. He became an editor, finally; then a Congressman; then what we call an organizer of Big Business.

He built the International Business Machine Corporation. It built such "simple" things as adding



Postmen of the air: Fairchild monoplane with wings folded, driving through the streets of Milwaukee under their own power. These planes were the first to pick up mail at a post office and deliver via air, a feat made possible only by the folding wings.



thin fraction of time. To give evenness of exposure and eliminate distortion it must be a between-the-lens shutter: that added mechanical obstacles.

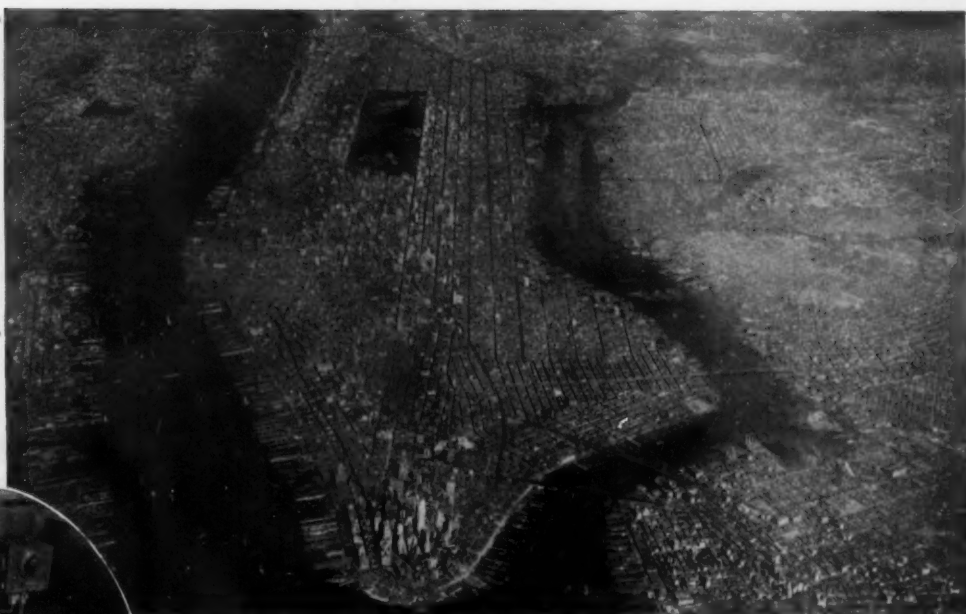
Any known metal was likely to be shattered by being put into motion and stopped so quickly. Finally Fairchild invented a method that gave a "comparatively slow" start and stop to this motion—if you can conceive of any fraction of a hundred-and-fiftieth of a second as being slow. The camera was considered a complete success, and the government ordered two of them, at twenty-five hundred dollars each. But the Armistice had just been signed, and the fool-proof model did not peer down upon the western front.

The tumult and shouting had died, however, and a government official "compromised" the bill for forty thousand dollars for outlay in experiments for the sum of seven thousand dollars. Fairchild Junior's contribution to victory therefore cost Fairchild Senior just thirty-three thousand dollars. But he paid—and hoped that since the war was over his son now would turn to the business of manufacturing computing machines.

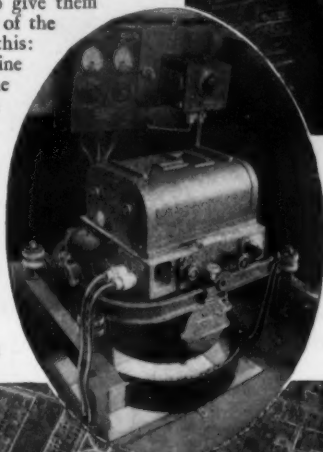
Sherman Fairchild, it happened, didn't care for his father's boots. He set about the job of manufacturing aerial cameras and learning how to give them profitable jobs of work to do. One of the ticklish angles of being an inventor is this: when you have invented a new machine you must also go ahead and invent the tools and machinery with which your major invention can be produced in quantities in a factory.

This "eye of the army" had commercial possibilities, so Sherman Fairchild set about developing those possibilities. He created the air-mapping industry in the United States. By doing so he became the first man to make an airplane earn its keep.

He had taken his first airplane ride when he demonstrated his camera



Probably the most unusual photograph of New York City ever taken—made with a Fairchild camera at a height of 16,500 feet, with the temperature 14 degrees below zero. It shows the entire island of Manhattan, from the Battery to the Harlem River. The oblong dark area in the upper end of the island is Central Park.



In oval, the military type Fairchild automatic mapping camera—the eye of the army. Above, one section of a map taken from the air with this camera. The small inset at the bottom is a photograph of the recording data which shows the position of the plane when the picture was taken and consequently the location of this particular area.

in Washington a few days before the Armistice was signed. Soon he was hiring pilots and buying planes in order to adapt them to his use—and very shortly, qualifying as a pilot himself.

### Three Thousand Miles for a Map

You will know that the making of maps has been preceded by the dragging of surveyors' chains and by logarithmic computations. Fairchild flew planes on even keel at uniform speed at ten thousand feet of altitude while his camera clicked away automatically; and later scores or hundreds of individual prints were cut and pasted together, after rephotographing and corrections for "tilt," and the result was a map incredibly accurate. Also it visualized everything, to tree and shrubs—and even traffic in the streets.

But this also involved expensive preliminary education. In an office so small that, if a visitor arrived someone had to get out, a great cheer arose when a contract was signed to map Newark, N. J., for the sum of seven thousand dollars. The job cost thirty thousand.

Nevertheless, the business grew and grew until there were many branches over the United States, and strange new uses for sky views had developed.

Three miles in the air, entirely out of sight, and beyond hearing distance, a plane can fly, recording everything about us. That is a war fact we understand readily;

but when you say that this same camera has gone into the lumber business extensively—

Odd, isn't it? Timber cruising has been one of the heroic occupations, involving as it does exploration through primeval territory for a rough computation of amount of timber available. It must be a bit of surprise to some of the old lumbermen to discover that a lean young man flying high in the air can set a camera to automatic operation, fly over scores of miles and bring back a report on a timber tract so accurate that every tree not only can be counted but identified and its size estimated.

The board of directors of the nation's longest railway line sat around a big table in New York and looked down upon the Chicago terminal and, seeing, decided about certain improvements which involved the spending of many millions.

This "eye of the army" looks down on a countryside and brings back fragments for a map with the aid of which engineers plan the routing of a railroad, a

water or power line. They can get the contour too; with a couple of prismatic glass gadgets you can look down on these prints, and the houses and trees and hills no longer are mere markings on a flat surface, but rise toward you, standing revealed as if modeled to exact measurement.

Only one pilot in five can fly a plane steadily enough for this work. Pilots flew three thousand miles in mapping greater New York. Two thousand negatives were taken. On one map six hundred feet were shown in one inch—in other words, about two average blocks to the inch. Another map showing more than six hundred square miles was eight by ten feet in size, and on the scale of one inch for two thousand feet.

All this mapping photography, of course, is vertical, as distinct from the oblique view of all Manhattan island, which you see at the top of this page, taken from an altitude of 16,500 feet.

Most mapping is done from an altitude of 10,000 feet. "Control" maps are shot from higher points. An army pilot once shot Dayton, Ohio, from seven miles up. Fairchild now has perfected different models, for different uses, his latest being a four-lens camera which will shoot twenty square miles at a click if you take up a position three miles high. A gyroscope insures constant vertical position.

Incidentally, these cameras have about a thousand parts, and, in case you'd like to make a note for your Christmas list, the price range for different models is two to five thousand dollars. Quite a step forward

from the birthday present Mr. Fairchild gave Sherman, but it all started from that!

About four years ago Sherman Fairchild told me, diffidently, that he hoped some day to manufacture airplanes. He wanted to know all he could about aerodynamics; so, despite the fact that he was even then managing what had become a sizeable business, he went into consultation with some New York University professors to see if they couldn't wrap the subject up into highly concentrated packages for him so that he could take a course in aeronautical engineering in a single year—as a side-line to his regular business!

### The First Plane to Fly over the Antarctic

They did, and he took the course. He wasn't interested in a degree; he wanted the stuff his professors had in their heads. When he had that he set about his plan. He was the first designer to see the advantage in placing the pilot inside, with the passengers. He thought open planes were obsolete anyway, for everything but training. He worked for extreme visibility also, and the design which resulted has been widely copied by others since. Moreover, he perfected the folding wing, so that on

[CONTINUED ON PAGE 286]



The rear cockpit of the Fairchild training plane. Altitude and air speed are shown on the dials at the left; oil pressure, oil temperature and engine speed on those at the right.



The forward cockpit of the training plane. Gasoline mixture and throttle control are on the left; ignition and gasoline switches on the right. In both cockpits the instruments and controls are so placed that if the pilot or student is thrown suddenly forward against the cowl his head will strike a padded area with no metal surfaces.



*Whe-e-ee! went the click, and once more Steve sought agitatedly for the handle; and then, back by the end of the point, a great fish broke the water*

## The Buggy-Wheel Bass

By *Ralph Henry Barbour*

ILLUSTRATED BY HAROLD ANDERSON

“THERE goes the Hermit,” said Ned Libby. Half a mile up the lake a gray skiff propelled by a solitary occupant was heading toward Second Point. Steve Milton’s interest was more pronounced than that of any of his three companions on the camp landing, for in all his fifteen years he had never seen a live hermit! And that he was seeing one now seemed doubtful when Warren Cowler observed carelessly: “That means it’s Saturday. Old Hemwitt’s as regular as—as baked beans!”

“Oh,” said Steve disappointedly. “You mean he isn’t a real hermit?”

Warry and Ned chuckled, but Laurie Sawyer, bronze-skinned six-foot councilor, explained. “No, that’s just a name the fellows have for him. His real name’s Hemwitt. He lives in Levinth, but he has a cabin around there in Whisper Cove and comes out here every week-end and fishes. He’ll anchor off Second Point yonder in about ten feet and stay there until dark. Always fishes in the same spot, and if he ever catches anything I’ve never seen him do it.”

“Next month,” added Ned Libby, subsiding again on the weathered planking and shading his eyes with brown arms, “he’ll come for two weeks, and then you’ll see him over there every day except Sunday. He’s after that big bass, Laurie—the one they call the buggy-wheel bass. Or so the fellows said last summer. Hope he catches him.”

“Are there really fish in this lake?” asked Steve eagerly.

“Of course there are,” answered Ned. “Slathers of ‘em. Mostly small, though.”

“Maybe, Ned, but there are some big ones, too.” Laurie Sawyer stretched his strongly muscled arms and glanced up the slope toward headquarters. It was almost time for morning “souse,” and he wondered why the bugle didn’t sound. “Last year, after the crowd had gone, the Chief and I went out one morning about five o’clock and got two whopping big pickerel up there in North Bay and that same afternoon caught a three pound and a half bass just under the bluff yonder. Of course that was September, and the big fellows bite better then. You can get plenty of white perch, and some yellow, but, as Ned says, they’re usually small. There’s plenty of fish here, and I guess I’ve caught all the kinds there are: bass, pickerel, perch, chub, shiners, pout, pumpkin seeds, eels and turtles!”

“Any trout?” asked Steve.

“No trout. At least, I never heard of any.”

“Well, what’s a buggy-wheel bass, please?”

The councilor started to explain, but at that moment the bugle sounded, up under the pine trees, and his official duties claimed him. Later, poised on the diving tower, Steve looked across the lake to where a motionless figure sat in the stern of a small gray skiff under the pitiless noonday sun.

Steve was fond of fishing, but his experience had been all on the running water of river or creek, and until that morning it hadn’t occurred to him that this smilingly placid Connecticut lake held possibilities. This was his first season at Lookaway, and, although the term was a week old, none of the other fellows at camp had evinced any disposition to fish the waters. The conversation on the boat landing reawakened his enthusiasm for the sport, and after supper that evening he sought Laurie in the recreation hall and talked fish and fishing for almost an hour, or until the summons to campfire sounded.

“I brought my rod,” said Steve, “and some mighty good flies, but I don’t suppose you use flies in still water. Down home I cast into the ripples and let it float downstream, but of course you can’t do that here.”

“I’ve never fished with a bass fly,” said Laurie. “I don’t believe you’d have any luck. Here we use about any kind of live bait or, if we’re trolling, a wooden minnow or a pork spinner or something like that. The best lure I’ve got is a little tin spoon I bought in a five-and-ten once. I’ve caught bass and pickerel both on that little dingus. Any time you want to fish, Steve, come down to my tent and I’ll fix you up.”

“Thanks. I mean to try it Monday. I’ve never fished in a lake before, and so I guess I won’t have much luck. I suppose when you go trolling you ought to have another fellow along to row for you.”

“Much better to, but you can do fairly well alone in a canoe. Keep along the shore, of course. By the way, have you taken your canoe test yet?”

“No, I haven’t,” answered Steve ruefully. “I guess I’d better get Warry Cowler to go along with me. I’d like to get a good pickerel. I never caught but one. Or a big bass. You were going to tell me about that buggy-wheel bass this morning. What is it?”

Laurie laughed. “Well, I’ve never seen it, Steve, and maybe it’s only a tradition, but the story goes that it’s a gosh-awful big critter that sticks around Second Point. Of course, he probably doesn’t do anything of the sort, but they say no one has ever seen him anywhere else, and that’s why Mr. Hemwitt fishes in that same spot. Maybe he’s seen him there. I’ve heard it said that half a dozen or more folks have hooked him and that he’s always broken away, but that’s probably just a yarn. I’ve heard about the buggy-wheel bass ever since I began coming here, and that’s four years ago, but I’ve never talked with anyone who actually saw him. If he’s as big as they say he is he must be the granddaddy of all the bass in this lake!”

“But,” asked Steve, “why is he called that? Does he look like a— a buggy wheel, or—”

“Oh, no, he isn’t that big,” Laurie chuckled. “I asked that question once myself, and here’s what I was told. Over across between Second and Third points there’s a sand beach, like ours here, only smaller, and there’s a road to it from the turnpike. Folks sometimes come there to picnic, and in the old days they drove their horses into the lake to let them drink. Anyway,

the story is that some man lost a wheel off his buggy over there, and that until quite recently you could see it on the bottom in about six feet of water, and that if you rowed up mighty careful you’d always find a big bronze-backed bass lying there with his belly between a couple of the spokes. He was so big that his tail fanned the hub and his nose hung over the rim! That’s the story. Take it or leave it!”

Steve grinned. “Gee, I’d like to see that fellow! Isn’t it there any more? The wheel, I mean.”

“I guess it’s there, but it’s probably covered with silt now. I’ve looked for it, but I never found it. I know where it is, though—or was; it’s just the length of a bass rod from the stern of Mr. Hemwitt’s boat, on a line with the dead chestnut on shore. So if you’re going to try for the



*Steve began to suspect Mr. Hemwitt of having fallen on his head at a tender age*





*The big bass made a gallant fight, rushing madly away while the reel shrieked. Twice more he spun upward into the gray mist, every inch of his powerful body in agitated protest*

buggy-wheel bass, Steve, observe carefully where the old gentleman anchors and go and do likewise."

"I will some day," replied the boy determinedly, "when I've got the right kind of bait. What would you use, please?"

"Live minnows or frogs, for choice. Or helgramites. Or, if you can't get any of those, a nice big night-crawler. You never can tell what a fish is going to fancy. I ran out of perch bugs up in Maine one time and baited up with little pieces of yellow silk cut from the lining of my cap. I got three pretty nice perch on those."

"Did you really? I knew you could catch frogs with red flannel."

"So you can sunfish. I guess if the fish is feeling real hungry he'll take a chance at anything."

**W**ARREN COWLER, Steve's tent-mate in No. 2 and recently acquired chum, was not at all enthusiastic about fishing. He said disparagingly of the Isaac Walton tribe that they were nit-wits, adding that, even if you caught fish, Doc—who was the camp cook—wouldn't cook them unless you cleaned them, and if Steve thought he was going to get him, Warry, to clean a lot of smelly old perch—

Steve promptly denied any such intention. "You don't even have to do any of the fishing if you don't want to. What I want you to do is row me along the shore so I can troll or cast."

Strangely, Warry agreed to perform that work with apparent eagerness. He didn't mind rowing, he declared, and so long as Steve didn't want to sit in one place for an hour at a time and watch a bob he was ready to help. So, provided with an assortment of Laurie's spoons and spinners, they made a two-hour circuit of the north end of the lake Monday afternoon and caught one seven-inch white perch which, to Warry's expressed relief, was at once restored to its native element.

Steve, however, was not discouraged. He bought several dollars' worth of artificial baits in the village and went fishing every afternoon that week until Saturday, sometimes with Warry, as often alone. Fortune, though, seldom smiled, for the lake was high and food was plentiful. Others emulated him, but lack of success soon conquered patience, and in the end Steve's own enthusiasm waned. On Saturdays Mr. Hemwitt was always to be seen in his boat just off Second Point, and Steve would have liked to scrape acquaintance with him, but, since Saturday was fully occupied and there was invariably a ball game in the afternoon, he was not able to satisfy that inclination. Other fishermen appeared on the lake on Saturdays and Sundays, increasingly as the summer began to wane, but their number was never great enough to lend the lake, which was almost five miles long, a populated appearance. Now and then reports of startling catches reached Camp Lookaway—

of a six-pound bass or a thirty-four-inch pickerel or a phenomenal number of white perch; but the events always took place at some remote part of the lake, and the fortunate fishermen never showed up to substantiate the yarns. Sometimes after listening to one of those encouraging reports Steve had a recurrence of the fever and set forth with rod and landing-net. When he did, however, he went alone, for Warry could no longer be beguiled into accompanying him. Fortunately, Steve's canoe test had by now been successfully passed, and so he was no longer obliged to tug at the oars of an unmanageable skiff. In a canoe he could troll, cast or still-fish, and if the denizens of the blue waters of Lake Levinth had been a little more willing to cooperate he would have asked nothing better than to spend his afternoons afloat. But the fish exhibited a discouraging perversity, and Steve frequently expressed the opinion that there wasn't a thing in Levinth except small fry, and as frequently relegated his rod to its place under the platform of No. 2 tent with the intention of letting it remain there during the rest of his stay at camp. He even doubted the existence, outside the imagination of local fishermen, of the buggy-wheel bass! And he began to suspect Mr. Hemwitt of having fallen on his head while at a tender age.

However, there were other pursuits open to Steve, many of them quite absorbing, and by the latter part of July fishing was practically forgotten by him. And so it continued until a certain Sunday morning in the first week of August, when he and Warry had one of their infrequent quarrels, this time over what was a just division of police duties around tent No. 2. About nine o'clock Steve, still smarting under the caustic comments of his chum, wandered down to the boathouse, pulled out a canoe and embarked therein. Except for a far-distant rowboat he seemingly had the lake to himself as he paddled toward Pine Bluff. Once around that bold and ledgy promontory, Whisper Cove enticed him, an almost circular body of tranquil blue water bordered at its farther side by rushes and pads and a fine sandy beach. From the beach extended a narrow pier, and at its nearer end a gray skiff floated. Straight back from the pier, in a small clearing, stood a tiny brown cabin, and from its chimney a pencil of blue smoke arose into the still sunlight.

Here, thought the voyager as he entered the cove, was an opportunity to satisfy himself on two subjects of interest; namely, Mr. Hemwitt's sanity and the existence or non-existence of the fabled buggy-wheel bass. He turned the bow of the canoe toward the nearer margin and, in the most casual manner he could assume, followed it as it curved toward the beach. Presently he came to the mouth of Whisper Brook, a quiet, modest little stream issuing with scarcely a murmur from its leafy tunnel; and he would have passed it without a second glance, being concerned with the whereabouts of

Mr. Hemwitt, if a sudden hail hadn't left his paddle in midair and caused him to turn.

From under the arched elders and hazels, wading bare-legged over the stream's stony bed, came a small, elderly man, tanned and wrinkled but with the friendliest of twinkling blue eyes. He was all in faded khaki, sleeves and trousers uprolled, and in one hand he held a small lard can and in the other a tin sieve. Steve answered the hail with a polite "Good morning, sir," and Mr. Hemwitt demanded somewhat startlingly: "Want some helgramites, young man?"

Steve shook his head. "No, sir, I don't think so."

"Well, I've got a nice lot here." Mr. Hemwitt gazed approvingly into the pail and then, wading through the shallow water, exhibited the crawling black horrors to the occupant of the canoe. "You're one of the camp boys, I take it."

"Yes, sir. My name's Milton. And you're Mr. Hemwitt."

"That's me, sure enough," agreed the old gentleman cheerfully.

"I've seen you fishing over by Second Point lots of times, sir."

Mr. Hemwitt chuckled. "Guess you have. That's where I'm generally to be found of a Saturday. I've been fishing this lake pretty regularly for six-seven years now. Got so I know most every drop of water in it! You fond of fishing?"

"Yes, I am, but I haven't had much luck here, sir."

"Well, it isn't very good fishing between the middle of July and September. What you been using?"

Steve smiled ruefully. "About everything, sir; artificial minnows and spinners and all sorts of live bait; except those things." He nodded at the pail. "I didn't know where to get those. Are they good for bass?"

"Sometimes they are. Sometimes bass won't pay any attention to 'em. Sometimes bass won't pay attention to anything. That's the way they are. Bass are sort of queer. You've got to know 'em. I've caught 'em, one time or another, on all kinds of bait, but if you should ask me which was the best I just couldn't tell you. You've got to consider a heap of things: time of year, time of day, condition of weather, height of water, natural food supply, a dozen or more things. You going anywhere particular?"

"No, sir, I'm just out for a paddle."

"Well, come ashore and visit. Hitch up to the dock while I put these varmints away, and then we'll have a talk. Don't have many visitors here, young man, and have to make the most of 'em when I get 'em." Mr. Hemwitt chuckled and started off with his treasure. "Come right up to the cabin," he called back from the beach.

[CONTINUED ON PAGE 280]



Like many a graceful leap, the landin' wasn't so pretty. His foot slipped, and down Señor Alphonso came, sword flyin' one way and his chapeau the other

## Four Hundred Years Too Late

By Harry Irving Shumway

ILLUSTRATED BY F. STROTHMANN

IT was a quiet day in the headquarters of the Hammer and Chisel Club. Industry was at a low ebb, probably owing to the extra-balmy weather, which carried an undeniable hint for repose. Captain Freedom felt it as well as the boys. He yawned.

"It's more of an afternoon for a siesta than to run a race—or build a pyramid," he observed, fanning himself. "There's something in that old Spanish custom of takin' a snooze in the afternoon."

"Just the kind of an afternoon for a story, Captain," hinted one of his young friends. "It's too hot to work."

The Captain whistled a few bars of some old tune and stared off into the distance. "Hum, hum. Speakin' of Spanish customs, did I ever tell you about my queer voyage with an erratic gentleman named Fernandez? No? That was only one of his names—the Fernandez hangin' on the end of the whole passel, like a caboose on a train. His whole title when he was on dress parade was Señor Alphonso Lopez Esteban de Callala Fernandez—although when I first met him he was just plain Al."

HUM. Let's see (began Captain Pen). It was just after my adventure of "The Fountain of Youth" that I told you about some time ago. That little incident got into some of the papers, and when I got back home I found I was gettin' too well known for comfort, bein' a retirin' and modest sort of man. Well, I'd no sooner docked in New York than I found lots of people wanted to know about me and the trip I'd made. Golly, one young lady wanted a lock of my hair, I remember—and I caught another snippin' a button off my coat, as a sort of souvenir, I s'pose. But the funniest thing I got was a letter. It was from this man I mentioned, Señor Alphonso and-so-on-and-so-forth Fernandez. It ran something like this:

Señor el Capitan Penhallow Freedom,  
Dear Sir:

I write you full of hopes and ambitions with apologies. I do not know you to speak to. But you are the man for me, yes. You are the greatest navigator there never was, and I take pen in hand to make you great offer.

Who am I? I am Señor Alphonso Lopez Esteban de Callala Fernandez. You don't know who I am yet, hah? *Bueno!* I tell you. I was poor and proud man up to five days in the past. Then what happens? A great fortune fall on me from Uncle in Spain. Two hundred and fifty thousand dollars to Señor Alphonso Lopez Esteban de Callala Fernandez, so message from lawyer say, to have and to hold till death I am part. Now you know who am I!

Now listen, Señor el Capitan. I am make you grand offer. I buy big-big ship—four-five times bigger as Columbus sailed over to here in 1492, yes. How's that? And I make you her capitan with plenty wages who cares for expense?

You come see me quick at Gargoyle Building, Broadway, and

I give you too many details I can think up. I make you rich! I make you famous! You shall be greatest man on the ocean all except,

Yours truly,  
Señor el Almirante Alphonso Lopez Esteban  
de Callala Fernandez

P. S. Come quick.

That's the funny note I got, and I didn't know whether it was a joke or from some feller whose notions had got the best of him. But thinkin' about anything don't always get the right answer, so I hopped aboard a popular sea-goin' vehicle that used to sail the ragin' main in New York City. Hansom cabs they called 'em. The horse jogged along in front and the passenger sat in a sort of railed-in fo' castle-deck, and up aloft in the crow's-nest the skipper guided the craft.

The Gargoyle Building was at that time the highest buildin' in the city, and to a simple seafarin' man it was more terrifyin' than a typhoon in the Indian Ocean.



"Thees is History, yes! While we are goin' up and down, we talk business, hah? *Bueno!*"

I remember I met my first revolvin' door and got seasick for the only time in my life trying to get out of it.

There was a feller in a uniform standin' on the main deck inside, surrounded by a lot of cages. I went up to him.

"Commodore," I says, "I'm lookin' for a man that calls himself Señor el Almirante Alphonso Lopez Esteban de Callala Fernandez. He says he's in this buildin'." He says he's an admiral or somethin'.

"Admiral?" He shakes his head in puzzlement. "There's no admirals in this building. We got lawyers, chiropodists, dentists, opticians, authors and pianotuners—but no admirals. The only Fernandez I know of is the elevator man in No. 3 car there. Maybe he's the man. He's just fallen heir to a big lot of money—"

"That's the one," I said. "He's on the 39th floor now," says the man. "He'll be down in eight seconds!"

That seemed like a pretty speedy voyage, seein' it was all perpendicular. In just ten seconds that gold-plated car door slid back and—there was Mr. Señor Etcetera Fernandez. He was a smallish man with bright black eyes and a little pointed moustache. For all his pint-size he seemed sort of swelled up with importance. The Commodore introduced us.

"Al, here's a man to see you," he says. "My name is Freedom," I said. "Capt. Penhallow Freedom. I got your letter."

He let go the helm of that car sudden, and it near snapped his head off.

"Enter, Señor el Capitan!" he said and bowed. "I am too proud to meet you, yes. This is a great event. Enter—and watch that pig of a step!"

Then he glared fiercely at some people who were tryin' to get in the car with me.

"I keep her goin' up and goin' down," says this funny Señor Alphonso. "But I take no passengers but you, Capitan. Such an event! Thees is History, yes! While we are goin' up and down, we talk business, hah? *Bueno!*"

And, *whush!* up we shot toward the roof, forty stories above. I've talked business in some funny places but never in one as uncomfortable to my breathin' and digestive apparatus as that one. We no sooner went up than down we plunged again.

"I am a man of honor," said Señor Alphonso. "That's why I give thees Gargoyle Building two weeks' notice before I am resign. I am rich! I don't have to run an elevator some more. I can sit down in a dozen plush chairs and do nothing for a thousand years, yes. But I give two weeks' notice."

"You spoke of needin' my services," I hinted, beginnin' to be mighty sick of this jumpin' up and down forty stories.



"Ah, yes, my Capitan. I must have you as my Vice-Admiral on my ship. In five days more we sail, if you will honor me by being my Vice-Admiral. I say *buena noches* forever to thees elevator in five days. And now I tell you about the big idea, yes. I am to explore! *Caramba!* Once again a Spaniard will sail the seas again in search of new lands! Once more the proud blood of Spanish explorers will seek out new countries! Think of it! Pizarro, Balboa, Pinzon—I pick up the torch they blow out, hah! I, too, will discover new lands. And you, O Señor el Capitan, will be my Vice-Admiral. I promote you already! Now, will you come?"

"Let me get this straight, Señor Fernandez," I said. "You're goin' to get a ship and start out huntin' for new lands. Am I right?"

"Si, Capitan. And we begin on continents!"

I stared at him. "Continents! Seems to me we ran out of continents to discover some years ago."

"Pish-tush! Did that leetle thing stop Christopher Columbus? Did he sit down and twiddle the thumbs because they had two-three old chestnuts like Asia, Europe, Africa? No, no, no, no! Old Christopher he say, 'Boys, just because we know about Europe and these places don't mean some smart feller can't discover better ones, hah? *Caramba!* Let's you and me take boat and dig up bigger and better ones! *Buena!* So they go. Sail away, and one fine day who sticks her head up on the horizon? Hah? Statue of Liberty! If Columbus can do it—so can Señor el Almirante Alphonso Lopez Esteban de Callala Fernandez!"

WELL, we spent a pretty dizzy half-hour, goin' up and down in that elevator. But I gathered that this queer little elevator man was bent on bein' an explorer. That was clear. And he had a lot of money—a quarter of a million dollars; and anybody with that much money can afford to ride 'most any kind of a hobby horse. Finally, he'd set his heart on havin' me as skipper of the ship—when he got one.

I was out of a berth at the time, and, bein' young and adventurous, his wild proposition sort of appealed to me. So we shook hands at the end of the twenty-seventh trip, agreein' to meet the next day and talk it over.

Well, when Señor Alphonso's two weeks were up he found a big schooner for sale, a fine staunch three-master, the Carrie B. Mulligan. I liked her lines and knew she was built to weather any sea. But Señor Alphonso groaned over her simple black paint.

"What a ship for a great Admiral!" he spluttered. "And what a name! She must be called the Santa Rosa at once. And we must have her painted gay with many colors—and sails the color of the tangerine!"

That delayed us two weeks. That crazy explorer had the sails dyed a bright orange—and the hull was painted red and blue. And all the filigree he could find above her water line he had covered with gold leaf. It's a wonder the Statue of Liberty didn't laugh out loud as we passed her one fine mornin'.

Señor Alphonso was dressed that day as an Admiral—

WHEN I ride on a combination Ferris Wheel and Roller Coaster I want to do it on land, not in the middle of the ocean!" said Captain Pen, after a trip on the strangest ocean-going craft that anyone ever rode on.

What that craft was, and how the ride ended, you will find in

## The Swan Song of Cicero

Don't miss it in JUNE

accordin' to his notion of the costume. He wore a chapeau the size of a dory trimmed with gold and set off with a huge ostrich plume. His blue uniform was covered with gold braid, and he had two gold epaulets as big as bushel baskets on his shoulders. He wore a jeweled sword, too.

"Now see here—um—Admiral Fernandez," I said. "Are you set on goin' explorin' for continents? I can assure you they're all discovered."

He twirled his black moustache fiercely. "*Caramba!* That is most unfortunate, yes. Well, how about some little baby continents, hah?"

"Little baby continents? Oh, you mean islands!"

"Si. It's all the same. If we can't have papa continents—then we make us content with baby continents. What's that land there? You s'pose she's been discovered yet, hah?"

"That's Long Island," I said. "We're several hundred years too late."

"All right, Capitan. You point her nose at the north, see. And we sail till we run into some baby continent where explorer has never been already. *Caramba!* It is the great life!"

I put a young feller up for'ard as lookout, to humor the Admiral, who wanted someone to shout "Land ho!" whenever he saw as much as a piece of floatin' moss.

"Land on the port bow!" the lookout would sing.

"Yes, yes, yes!" the Admiral would cry, jumpin' up and down. And I'd ask the boy what he made of it.

"Shore of Rhode Island, Cap'n," he'd yell back, sober as a judge.

Then I'd explain. "Sorry. That has been discovered, Admiral."

Later we saw more land.

"Land ho!" sang the lookout.

"What is it?" yelled the Admiral. "Stop the ship! What land is she?"

"Cape Cod, Cap'n. And all's well!"

That boy was a great lookout. Well, we spotted lots of islands and bits of the mainland durin' the next two weeks. But every time, sad to say, it had been discovered. As we sailed north under good winds, it grew colder and colder. We were gettin' up into the Arctic Ocean. And the Admiral didn't like it a bit. His

warm Spanish blood didn't relish the breezes comin' down from the North Pole.

ONE noon we were startled by the lookout yellin', "Land ho!" Sure enough, there was a grayish blur just ahead. That stirred the Admiral out of his quarters in front of the stove in the galley. He'd been rehearsin' the ceremony ever since we'd started, the things he'd do in case he discovered any land. One sailor knew how to blow a slide trombone—at least he did when all hands were too busy to stop him. The Admiral had made him official trumpeter, and he'd even tied a velvet, gold-fringed flag on the horn. Another sailor was official photographer—had a big camera which the Admiral had bought him.

Now there was a fearful hubbub. The Admiral bounced around all a-tremble—every now and then tryin' to calm himself down to the dignity of a great explorer.

"Hi," he cried to the official photographer. "You have the camera loaded and ready? *Buena!*"

"Aye, aye, sir. I've got it all down in me head, as we rehearsed it. I take the first pitcher of yer when yer put yer foot on the landin' rock. Then I take the gang followin', with the flags and horns. And another when yer plants the flag in the ground."

"Excellent!" beamed the Admiral, chatterin' a bit from the awful cold. It must have been thirty below zero.

The trombone player had his troubles too. "How'm I goin' to play 'See the Conquerin' Hero Comes' on this horn? Every time I put it to my mouth, it freezes."

The Admiral thought. "*Caramba!* I am man of invention as well as great explorer, yes. Cook! You tie hot water bottle on thees trombone, si! That keep the music nice and warm, hah? Now, Capitan, you take notice of everything. You land with me, two footprints at the right of me and two footprints in the rear. Now I guess everything she's O. K. Forward!"

We anchored in the deep little harbor and lowered two lifeboats for the great landin'.

"R-r-ready to l-l-land, b-b-boys?" chattered the Admiral.

"Aye, aye, sir," chattered back the party.

"Capitan, History is about to be m-m-made," said the Admiral, knockin' an icicle off his moustache. "Thees is a great moment."

The first boat had touched a big ice-covered rock. The photographer hopped out, and we waited while he set up his camera, shiverin' and miserable—even if we were historic.

"O. K.," said the photographer. "Yer can land when ready, Admiral! And it'll be a good pitcher if the bulb ain't froze!"

"I am off!" shouted the Admiral.

He drew his sword and made a graceful leap for the rock. But, like many a graceful leap, the landin' wasn't so pretty. His foot slipped, and down he came,

[CONTINUED ON PAGE 287]



"I take possession of thees island in the name of the United States and New York City, Ward Fifteen! And—I name you—oh—I name you Hot Dog!"

# Towering Steel

A great engineer tells you in this article the thrilling story of the backbone of our civilization



ON the cover this month you will see the towering frame works which in a few months will support the Hudson River Bridge, one of the most extraordinary engineering achievements of our day. Like all great bridges and tall buildings, it will be built of steel. People with a fondness for labels have called this the Steel Age, just as long ago there was a Stone Age, when stone was the most useful of all known materials. Without steel, which has been made com-

mercially for little more than half a century, we would be without railroads, automobiles, airplanes and most of the other conveniences of civilization. Now The Companion has asked Lee Haun Miller, chief engineer of the American Institute of Steel Construction, to tell you something of the romance and importance of steel: what is being done with it today, and what may be done with it in the future. There is probably no greater authority on steel in the United States than Mr. Miller. In the course of his career he has designed or built cranes, bridges, mill and office buildings, car dumpers, hoisting machinery, and practically everything else which can be made from structural steel. His fondness for the metal he carries even into his recreations, for his golf-clubs all have steel shafts. The Companion is fortunate to be able to add Mr. Miller to its list of distinguished contributors.—The Editor.

THE newcomer to this country may be an immigrant all of whose worldly goods are tied up in a few bandanna handkerchiefs. Or he may be a visiting English lecturer, coming to New York to tell Americans what is wrong with their country; or an opera star with twenty trunks of costumes. But as the liner's threshing screws carry her slowly past Staten Island and into view of the Battery, the sight that meets the watcher's eyes brings a gasp to his throat—a gasp of wonder and amazement that man should have built anything so colossal in its size and beauty as the sky-line of New York.

Yet beauty like this is no longer confined to the nation's metropolis. The aerial camera has picked out and shown in a new light far more man-made beauty. You will find what may be called, with no thought of sacrilege, Cathedrals of Commerce rising in every city in the land, though it may have only a hundredth of the millions of people who make up the city of New York. It is beauty of a style that was never dreamed of in the days of flamboyant Gothic architecture, but it is beauty, real beauty, none the less; beauty that is particularly appropriate to our industrial age and country for the useful purpose which it serves.

If you look at the great office buildings of your native or your nearest city, it is mostly limestone, brick, marble and glass that meets your eye. The amazing material that has made these wonders possible is modestly hidden away. Yet if that material were suddenly removed from the vital place it holds in our civilization today, most of our buildings would collapse, our airplanes would fall

By Lee H. Miller

from the sky, useless shells of automobiles would line the highways, railroads would disappear and civilization as we know it would come to a sudden, terrible and tragic halt.

That material is steel.

The most amazing thing about steel is its extraordinary youth. It is, from one standpoint, not much more than fifty years old. Seventy-five years ago, you could have removed all the steel in the world, and no one would have cared a rap. Life, the life in which the grandfather of the average boy and girl of today was young himself, would have gone on almost without a change. Even fifty years ago, the elimination of all the steel in the world would not have caused any very serious inconvenience. And today we so depend on this same element that its removal would bring catastrophe to every one of us.

Iron, of course, is one of the oldest and



Here is an unusual view of work on the new Hudson River Bridge, taken from the tower on the New York side, looking toward New York City

most useful of the metals. But iron and steel, although they are chemically cousins, are very different in their properties. Steel I can describe as a refinement of iron—without getting into quarrels with chemists, I hope, for the metallurgy and chemistry of iron and steel are amazingly complex, and there are as many different kinds of steel as there are kinds of cats. It is iron to which many things have been done or added to give it toughness, or ductility, or elasticity, or brittleness in certain measure to fit it for certain jobs.

The story of steel began in the town of St. Pancras, in England. It was there, in 1854, that one Henry Bessemer (later to be knighted and famous throughout the world) made his great discovery—the discovery, which he came on in his small ironworks, that if he blew a blast of air through molten iron he oxidized and drove off a number of the impurities which made iron an uncertain substance chemically, and to all intents and purposes produced a new substance—steel. The process of Bessemer, and of Kelly, who made an almost simultaneous discovery, is old-fashioned and unsatisfactory now; modern metallurgy has far surpassed it in wonders. But it was the start. From that time on, the Woolworth Building was a possibility. And trains that traveled sixty miles per hour. And one automobile for every five people in this country. And man's conquest of the skies. None were, before that blast of air went through that caldron of iron and dross. Once it had, each one, you may like to think, had its actual beginning.

Seven or eight years ago an engineer stood on the New York shore of the Hudson River, watching the crowded

Still one of the greatest and most picturesque bridges in existence: a span of the Forth Bridge over the Firth of Forth in Scotland



ferries plying back and forth between New York and the Jersey shore. Automobiles and other conveyances were compelled to use these ferries, for the Hudson Vehicular Tunnel was still far in the future. Passengers for the suburban parts of New Jersey were compelled to take them also, for the Jersey tube came out at Jersey City. A bridge across the river would be an immense saving in time for Jersey commuters; it would open up miles of new suburbs for an overcrowded city.

## Great Bridges

So this engineer drew his plans for such a bridge. Experts told him that they could never be put into operation. He redrew them many times to meet the criticisms raised against them before he finally convinced the Port Authority of New York that they were feasible; that the bridge could really be built, and built safely. That engineer was O. H. Amman, Swiss by birth and American by adoption. To him belongs the honor of having brought the great Hudson River Bridge, flung across two-thirds of a mile of water, into being.

The Hudson River Bridge will have a span 3,500 feet long. It will be the greatest single-span bridge in the world—nearly twice as long as the longest hitherto built. And modern steels, with the engineering genius to



Riveters busy on a soaring cornice, many stories above the street. They are at work on the new Jewelers' Building in Chicago



Thirty-five stories above the New York sidewalks these intrepid steel-workers calmly eat their lunch astride a timber support



produce designs to utilize them, have made it possible. Nor is it the limit in length. So sure are we now of the strength of our materials that plans are now under way for a suspension bridge across San Francisco Bay with a span of 4,000 feet; engineers are discussing with the Port Authority of New York a bridge across the Narrows with a span of 4,500 feet; other engineers are talking of a bridge across the Golden Gate, near San Francisco, with a span of 5,200 feet—less than thirty yards short of a mile. Compare those figures with the span lengths of the longest bridges we have now—the 1,850 foot span of the Ambassador Bridge between Detroit and Windsor, Canada; the 1,800-foot span of the Quebec Bridge; the 1,750-foot span of the Camden Bridge, over the Delaware at Philadelphia.

Building great bridges is certainly one of the most romantic of occupations, but it is no less certainly one of the most difficult. The spans about which we have been talking were first conceived by men who spent months and even years in their design. Bridge plans, down to the size of the smallest rivet on the smallest angle-iron, must be correct. An error means the possible loss of millions of dollars and hundreds of lives. The money involved is staggering. To build the Hudson River Bridge a bond issue of \$50,000,000 had to be floated.

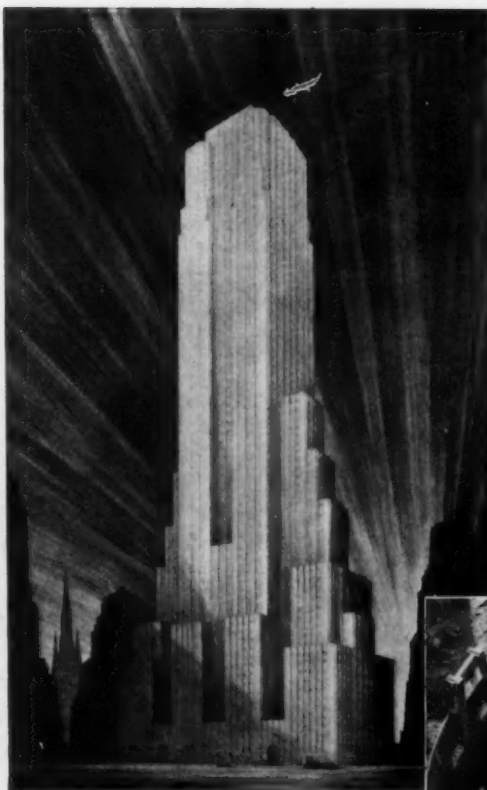
The men who do the actual building are faced with hardships that few other workers have to meet. The construction of a building is difficult enough, but it can hardly be compared with that of a bridge. Bridges are thrown across great bodies of water where the wind and the temperature may make existence almost unbearable; across railway tracks where express trains speed a few feet below, blowing dust and cinders and sparks into the workmen's faces; in the wilds of Africa or South America and in difficult situations all over the world. From the designer to the man who applies the last coat of protective paint, bridge-building is the most rigorous of occupations. But the builders have this compensation: they know that their work will endure.

Not long ago a board of engineers made a careful examination of one of the first steel bridges ever built in this country—the Eads Bridge over the Mississippi River at St. Louis, built in 1874. They found it in perfect condition. One of the first iron bridges ever built was put up in 1777 at Colebrookdale in England, and after one hundred and fifty years it is still in service, although iron is not more durable than steel. A steel bridge, properly looked after, will last almost indefinitely.



Finishing the upper floors of the 35-story New York Central Building. Railroad trains run through what would ordinarily be this building's basement, and the "basement" itself, with all the necessary machinery, is on the fifteenth floor.

The exactness of modern steel construction would be unbelievable to the old-time engineer. If you happen to live in the vicinity of New York and have watched the work on the great towers of the Hudson River Bridge, you may have wondered why those towers were built up to a certain height last winter—and then suddenly left alone until this spring. The reason was simply this: they must be exactly 600 feet high—not about 600 feet, but exactly that height, without a fraction of an inch's variation. And there was no other way to insure this than to build up to 500 feet or so, and then wait for any settling, however minute, in the structure. That settling was measured this spring, and now the additional hundred feet have been designed and are being built on.



Steel construction makes possible such architectural triumphs as this: a suggested design for a 75-story building in New York.

The immense strains which the towers must bear made this care necessary. All the cables supporting more than half a mile of roadway will bear down on them, and if they were to collapse the whole bridge would plunge into the Hudson. But so well can the properties of steel be measured and controlled that the bridge will be as safe as your sidewalk at home.

Not Bessemer steel, but that made by the later open-hearth process, makes that control possible. Bessemer steel was good, but its formula was hard to control, and it was apt to contain sulphur and phosphorus. The first made it brittle when hot, the second brittle when cold. Open-hearth steel can be controlled as to content. Its formula can be as exact as that for some delicate medical compound. And in practice it is as exact, for we must know down to the last possible fraction of a pound what weights it can be depended on to support or withstand.

Only steel made the Hudson River Bridge possible, and only steel will build the other great bridges that engineers have been planning all over the country. And not only does it make them safe, but it makes them independent of traffic increases. Bridges of other materials may prove to be too narrow or too weak to withstand larger loads, but a steel bridge can be increased or strengthened



Two steps in the fabrication of steel. Above, the massive machine used for facing the ends of columns. It has a capacity of 50 columns a day. Right, a machine which punches 16 rivet holes at a time through a solid steel girder.

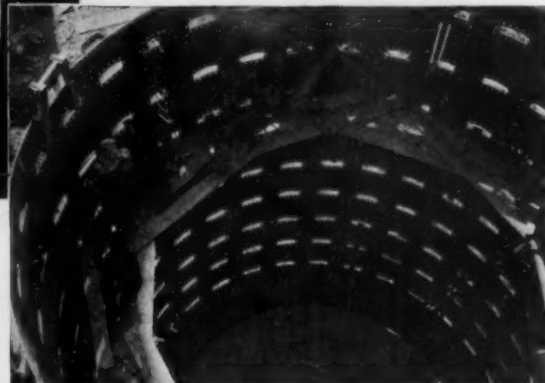
whenever traffic demands it. A few years ago the Trisanna Bridge at Vienna, on the Arlberg line of the Austrian railways, was fitted with an entire lower truss below the floor, so that it would be strong enough to carry heavier loads. The bridge itself was built as long ago as 1870, by Waagner-Biro A.G., and was designed for the trains of that time. It weighed 501 tons, and the new truss, added by the same firm that

had erected the bridge in the first place, weighed almost half as much—219 tons. The increase in strength has made it perfectly safe for modern locomotives—a feat which could hardly have been accomplished if the bridge had been built of anything except steel.

### Skyscrapers

Between the men who design a bridge and the men who erect it comes the steel fabricator. It is the fabricating industry which purchases the material from the rolling mill, and cuts, punches, fits and rivets the pieces together to fit each particular job. A bridge is first manufactured in a fabricator's shop, shipped to the job, and then erected. But bridges are only part of the fabricator's work. The greater portion of it is concerned with skyscraper building. The steel members for the skyscraper, as for the bridge, are cut to measure and manufactured by the fabricator, shipped to the location, and there "buttoned" together.

Who designed the first skyscraper is still a matter of dispute. L. S. Buffington, a Chicago architect, attempted to file letters patent on his skyscraper design in 1887, but was never able to establish his claim. That did not prevent him, however, from threatening suit for patent infringement against several owners of later skyscrapers. Another claimant is W. L. B. Jenny, who built the first steel-framed build-



During Galloway

Where steel is made: a modern ore furnace with steel shell, under construction near Birmingham, Ala.

ing, the Home Insurance Company Building, in 1883.

The earliest beginnings are probably to be found in the building erected in 1854 in New York for Harper & Brothers, where cast iron columns were used as supports. Wrought iron beams and columns were used in buildings for the Centennial Exposition in Philadelphia, in 1876. By that time iron was beginning to be a fairly common building material. But there was another problem that had to be solved before engineers were ready to construct tall buildings. That was the problem of getting people from floor to floor without stairways. One of the earliest elevators known was the one installed in the ornate old Fifth Avenue Hotel in New York, in 1859. It was built by Otis Tufts and cost \$25,000. A steam engine ran it by turning an immense vertical screw—whence its name, vertical screw railway—much as a nut is moved up and down on a bolt by turning the bolt. The first suspended elevator, the forerunner of the kind we know today, was installed seven years later in the old St. James Hotel, New York.

Then came foundations. Simply digging a hole in the ground and building up masonry to support the building was not sufficient for more than a few stories. The foundation problem was not solved until 1880, when the

[CONTINUED ON PAGE 289]





"It's a dirty insult! I been insulted enough. Now come out from behind that desk if yuh don't want me t'—"

## Speed Uses His Head

By *David William Moore*

ILLUSTRATED BY Y. E. SODERBERG

THE old clock on the wall of the production department droned off the slowly moving seconds. Tick-tock; tick-tock. Do your work; do it well; do your work; do it well. It was a lazy spring morning, the sort that makes a boy restless under the restraint of having to take care of a job, even though it is a bully good job.

Speed Kane, the energetic young assistant, was going at his work with his well-known vigor, though there wasn't quite as much snap in the way he dashed off his memoranda, or in his voice as he talked over the telephone. He seemed to be getting satisfaction out of his work, but not a great deal of excitement. This was a morning to make a fellow feel like a plow horse rather than a fiery thoroughbred.

But it was perfect for Herb Rowe, the production manager, who genially permitted Speed to do all the work. Herb was sitting comfortably at his desk and deriving a large measure of solid comfort from his morning paper. It was a bit annoying, probably, to have to turn the pages, but there's always a something to bother.

Finally, Herb laid his paper aside, with a sigh of heart-felt regret. Thirty-six pages wasn't enough reading matter. He looked at Speed, thinking that perhaps he could prolong the satisfaction of his paper by some conversation. "I see the Babe got his smash over the fence again yesterday."

"Yeh," said Speed. He had read all about that smash at five-thirty yesterday.

Herb seemed philosophical. "That fellow Ruth is what I call a real guy. He knows what he wants to do; he knows how to do it; and he—"

"Aw, shucks! I wish Babe Ruth would come walking in this dump right now. That would be something to talk about. I'm getting hungry for excitement. I'm

beginning to feel about as cheerful as a 'Game Postponed' sign. If something doesn't happen pretty soon, I'm going to lose my pep, and this old agency will go to the dogs."

"Just be patient, kid. By the time you're forty you'll understand there isn't much in this world to get all hot and bothered about. It's this way—"

And then Jim Sharpe walked in. Jim was a demon contact man, handling big accounts. Not very exciting, but usually when he happened in it meant that something had to be done that never had been done before, like making a cut in an hour, or printing some folders in a couple of days. He put pep into the production department, and his coming now caused Speed Kane to brighten up quite a bit.

Jim dumped some papers on to Speed's desk, apologetically. "Nothing but a charity job this time, boy. Business is kind of dull with me."

"Hmph!" and Speed's face fell. "I was hoping you'd have something interesting."

Jim swung into his usual business manner. "Now this full-page ad for the Y. M. C. A. membership drive—we're to make a cut for it. Can't spend any money, except for the plate. No drawing. I told Robertson—he's the chairman of the committee—that we could find illustrations somewhere. And it's up to you, Speed, to use your head. You know how, boy."

"Sure," admitted Speed. And he picked up the work with a measure of zest. At least, it gave him a chance to spend some time looking for illustrations in the magazine

file. That would break the monotony of writing orders and checking deliveries.

"This man Robertson is a good client of mine, Speed," had been Jim's parting shot. "He's giving his time to the Y. M. C. A., and he expects to get the cooperation of the Hannibal Advertising Agency. So we've got to give him something snappy, if we can."

The title of the advertisement was: "Will Your Son Grow Up Into a Man or a Beast?"

Speed read it over a few times. "I'll say that's got a wallop, all right. Taking a heap of credit to themselves; but I should worry. Want cuts showing a Man and a Beast. Well—" And he made for the file-room.

Man or Beast! There was an advertising idea to conjure with. Speed decided that he'd show this bird, Robertson, how the Hannibal gang could really put over a sales argument.

His immediate job was to find an illustration that could serve as copy for making a cut—for two cuts, rather. One would have to be an up-and-coming business executive, Speed reasoned, and the other a no-account man. It oughtn't to be so hard. In just a few minutes he discovered a picture that was a composite portrait of the two recent Presidential candidates. That ought to represent a real man, all right. Speed tore out the sheet. Now for the bum.

It seemed that pictures of bums were rather scarce. Finally, way back in a corner, hidden in the dark, Speed happened on to a file of dusty old magazines. They must have been ten years old, at least. Maybe a hundred, for all Speed knew. He picked off the top one. It was about pugilism. Might be something here. He turned a few pages—and there before his eyes was the most perfect Beast he ever had seen in his life. It was a full-page picture of a so-called prize-fighter,—no name under it,—and opposite was the heading, "What Is the Cost of a



Hundred Ring Battles?" Apparently, the writer was using this portrait to show that a fighter couldn't get by a hundred ring scraps without having his map distorted almost beyond human characteristics.

Speed studied that picture a long time. It was just what he wanted, yet it was so perfect that he simply had to admire it. "Boy," he said to the fellow looking out at him, "they sure must have pasted you! If your old mother ever saw you looking like this, it would break her heart. I wonder what you did to those other fellows."

No, there couldn't be any criticism of this picture. The fellow himself surely wouldn't care, even if he did find out. He did look like a Beast. And, anyway, Speed reasoned, that old magazine had been printed in Minneapolis, which was a long way from Cincinnati. Further, nobody would object to helping the Y. M. C. A. in its membership drive.

AND so the cuts were made, and everybody was delighted. Speed had used his head, all right. Jim Sharpe said the illustrations were perfect. Mr. Robertson declared they were the best he'd ever seen for such a purpose, and if the Hannibal Advertising Agency could give him such service in his own work he'd be better pleased. Then the advertisement appeared in the newspapers, causing its reasonable share of interest, and bringing into the fold of the Y. M. C. A. a very tidy number of enrolments.

"I'll buy you a good lunch one of these days, kid," promised the happy Jim. "This is better than I thought it would be."

Which pleased Speed so much that he showed the ad to Judy McGann, the file clerk, explaining in full detail that he was responsible. "Isn't it a dandy?" he asked, holding up the proof so the light would strike it just right.

But Judy, being perhaps a little immature for appreciating high-grade advertising-agency work, didn't react. She couldn't get her eyes off the Beast. "Ugh! I'd hate to have to look at a real person like that. I think fighting is terrible. You don't fight, do you, Speed?"

"Who? Me? I should say not." Then he considered the proof from his own viewpoint. "You just watch me, Judy. One of these days I'll be handling some real accounts of my own. Just you wait."

Which was all right. Quite all right. For it was a good piece of work, and justified such self-satisfaction. Yet, because of this fine example of advertising cleverness, there was gradually closing in upon Speed Kane the largest piece of trouble that had ever happened in his young and innocent life. This impending disaster was all the more terrible because Speed went right ahead enjoying his triumph without the slightest intimation of what was in store for him. Jim Sharpe ought to have known the danger. Mr. Robertson, the experienced advertiser, should have been cautious. Indeed, Speed himself should have had a hunch that trouble might come. But no—

Now, as a cruel fate would have it, there lived almost within a stone's throw of the office of the Hannibal Advertising Agency a man by the name of Joe Bang. His home was a squalid furnished room in one of those dingy apartment buildings that squeeze themselves so close in upon the business district of a large city. Joe Bang was an unknown figure—just came along; there he was. A sour, silent, fermented individual, looking out suspiciously and bitterly upon an unappreciative world. A mean, rotten world, he called it. It had left him broke, lonely, not even able to get a match. And he the great Slugger Joe, the fighter who had gone through a hundred battles! Why, he'd have been the champ if they'd given him a chance. But now—just a bum, with crooked eyes, shapeless lips, bulbous cauliflower ears; he was vindictive, poisoned with resentment and bitterness. And, of course, he saw the picture of the Beast in the advertisement which Speed Kane had so ingeniously produced. The picture that Speed had used was his picture!

The advertisement appeared on Monday. One week later, Slugger Joe wandered into the reading-room of the city library to read the want ads, and saw it. Within ten minutes he walked into the office of the Y. M. C. A. "Tell me who put me pitcher in this here ad!" he growled.

The secretary's face went white. He sensed the impending disaster. "Why, my dear sir, why—ah—" Then an idea came to him. "Our advertising is handled by—"

"I want to see de guy what done this!" Slugger Joe was getting impatient.

"Well, you'll have to go and see the Hannibal Advertising Agency. They are entirely responsible for that picture." And the secretary made his information practical by explaining in detail how the office of the Hannibal Advertising Agency might be quickly and easily reached.

There followed an immediate call at the Hannibal office. Jim Sharpe was out. And so Slugger Joe Bang was soon leaning far over Speed Kane's desk, his ugly face pushing down into Speed's bewildered countenance.

"You de guy what put my pitcher in this here ad?" snarled the Slugger.

"Why—" Speed felt like a toad facing a rattler.

"Did yuh?"

"Why—" Speed couldn't manage any other word—not another word from the fifty or hundred thousand in use by the human race.

"If yuh did," went on the Slugger in the most menacing voice ever heard in the whole world, "then I'm goin' t' beat your smart Alec carcass int' a piece o' beefsteak. Get me?"

Speed looked around hurriedly and noted that Herb Rowe had gone to lunch. He was utterly alone with his fate. He must do something. Just a glance at the horrible face and then at the advertisement that Slugger Joe held in his hand convinced Speed that this was the original.

"It's a insult!" The man waved the paper in clenched fist. "It's a dirty insult. I been insulted enough. I won't stand for no more. Now come out from behind that desk if yuh don't want me t'—"

Speed's fear was so overwhelming that he now had a sense of fortitude. His mind worked fast and furiously. "So you're the man who fought a hundred fights. Gee, you must have been a real fighter."

A look of satisfaction flashed into the cunning, beady eyes. The hard face seemed to soften a little. Then the old menacing glare returned. "Yeh, I'm th' guy what could've knocked th' champ for a goal, if they hadn't double-crossed me. I'd've knocked him silly just like I'm agoin' t' beat you. This is once I ain't goin' t' get cheated out o' my win. Now—"

Speed sat hunched down in his chair, a sickly grin on his ashen face. "This isn't a good place to fight," he said.

"It ain't, eh?" and the brutal, scarred fists began to take their position of combat.

"Now, here's what I'll do," continued Speed. "I'll meet you somewhere outside the office. Say out in the park, Eden Park, if you like, where there won't be any people around—" Silly words, and they awed Speed as he heard them coming from his lips. But they seemed a way out, and he continued desperately: "And then we can put on a real fight. That's fair, isn't it?"

After a moment, the Slugger's face appeared to relax a little, and hope came to soothe the troubled mind of Speed Kane. The brute had sensed wisdom in Speed's suggestion.

"Meet me at ten o'clock t'night in Eden Park by th' water tower. If yuh don't, I'll come back here an' give yuh twice as much maulin'. An' don't bring no p ls or dicks. Understand?"

Speed nodded weakly, and the Slugger shuffled out of the room, leaving the production department assistant with his miserable thoughts.

Speed thought of many things. Why go there at all? Why not take a cop? No, he'd given his word. He might break his word, he reasoned in despair, to save his life, but it would do him no good. He had spoken more truthfully than he reckoned when he said that Slugger Joe could come back to the office any time and find him.

SPEED was right in the muckiest part of his meditating when Jim Sharpe came in to report again about the advertisement. The total number of memberships, Jim announced happily, was 143. Wasn't that fine? Surely, Speed would be delighted with the good news!

Oh, yes, indeed. Speed was so delighted that he looked like a tombstone. Jim caught the gloom, and inquired.

"I've got troubles," said Speed. "A guy calling himself Slugger Joe Bang has just been in here raising Cain about my using his picture in that ad. He says he's going to—"

"Sore? Why, say, he's likely to sue the Y. M. C. A. for damages. We can't have that. It'd make us look silly with Robertson. You'd better take care of him."

"I will," replied Speed.

"Get a release from him somehow. Why, my heavens! He might sue the Y. M. C. A. for ten thousand dollars. Robertson would be off us for life."

"What's a release?" asked Speed.

"You know, a signed statement giving us authority to use his picture. You've got to get it, Speed."

Jim took pencil and paper and wrote a few lines. "Have that typed up and get him to sign his name. Then there won't be any trouble. Get it back to me tomorrow. Remember!" And Jim was gone, after having deposited more trouble on to Speed's already sagging shoulders.

What to do? Speed Kane had been in many difficult positions before in his life. He had always come through with flying colors. Yet he had never faced such a problem as this present one. The obvious next step for him was to think, to think as he had never thought before.

Half an hour later a gleam of brightness began to spread over Speed's face. He got up and walked about

[CONTINUED ON PAGE 286]



"Ugh!" said Judy. "I'd hate to have to look at a real person like that. I think fighting is terrible!"



"That book's mine!" the widow Cross announced. "I missed it—those that are worth anything—and I'm here to get it!"

## Look In the Attic!

By Margaret Ward

ILLUSTRATED BY D. S. WENDELL

IT was a lovely May morning. Deepdene's borders were gay with pink tulips, and out in the vegetable garden Joan was helping Jock Wetherby with spring planting. Miss Fix-It had paid for the seeds and was providing Jock's wages, but today Joan Jordan wanted to be just Joan. And why couldn't she, now that Laddie Fink's father had stepped up to the "Dill for President Club" with the offer of a job for Dill in his Hillsdale factory—near enough so she could come home for week-ends, but far enough away so she would be safe from Hillsboro's village gossip. And if Dill made good, there was a fine chance for her to work up.

Down in the tangle of wild plum at the end of the garden a brown thrasher was singing, and a catbird mocked him with an even lovelier song. The freshly turned earth, with the even rows of stakes where Jock had planted, and the even rows of tiny green sprouts of radish and lettuce and cress and early peas that Johnny and Joan had planted ten days ago, looked as beautiful to Joan as the nodding tulips.

"Oh, I do love May!" she confided joyously to Jock, and to herself she added that she was going to take May off from business and enjoy it to the full.

"Joan! Joan!"

It was Gran, standing in the back door waving an envelope. "Here's those crookneck squash seeds I saved for you. You didn't forget and buy some?"

"No," called back Joan. "We're just about ready for squash seeds. I'll come and get them."

Gran loved May, too. She sat down on the top step of the back porch and patted a place beside her for Joan.

"I wish I could garden the way I used to," she sighed. "You come natural by your love of poking in the ground, Joan. But you've done enough for one spell. Now you let Jock do a little alone, while you sit here and tell me where you've got the tall peas and the corn, and where you plan to put tomatoes."

Joan didn't want to stop, but she could never resist the wistful note in Gran's voice when she spoke of growing old. She sat down and explained the plan of the vegetable garden, and Gran was horrified to discover that parsnips had been forgotten.

"I'll get you a packet of seeds right off," she said. "I was going out anyhow—this day's too good for the

house. I thought I'd walk up to Electa Appleton's and see how she's getting on. That is, I know well enough that she's not getting on at all, but I thought I'd take her some posies."

"Oh, yes, do!" urged Joan. "She's such an old dear, and that pokey little old house must seem pretty forlorn to her granddaughter."

"You don't want to come too and see Janet?"

"Couldn't this morning," said Joan. "Look at Jock now! I mean, notice that he's missing. He always has business in the next field the minute I leave him."

WHEN Joan came in to lunch Gran had paid her call on Mrs. Appleton and was full of the news she had heard.

"Poor Electa Appleton! She hasn't enough for one, and now she's got to feed and clothe fifteen-year-old Janet. She loves having her, and, for all it's forlorn up there on the hill, Janet loves being there, after having been cooped up in a few rooms in the city. Her father is going to help as soon as he can, but his wife was sick a good while before she died, so he's tied up with a big doctor's bill. Electa doesn't know which way to turn. She wants you to come up just as soon as you possibly can and see about it."

"Oh, Gran dear!" protested Joan. "What can I do?"

"I'm sure I don't know," admitted Gran cheerfully, "but since you sent Sarah Wideawake off to Florida in state every old woman in Hillsboro township is going to expect you to find her a fortune when she needs it most. Of course"—Gran turned suddenly serious—"the only thing Electa can do is just what she's been doing for years: sell a piece of furniture once in a while and live on the money. And hope," added Grandmother fervently, "that the furniture will last as long as she does."

"Poor thing!" sighed Joan, thinking how awful it would be to part, one by one, with Deepdene's treasures.

"I had an idea that all her really nice things were gone already—"

"There!" cut in Gran eagerly. "That's just where you come in. I told her of course you couldn't make money grow on bushes—not more than once in your life. But you do know a lot about old furniture, and she can trust you to tell her what her things are rightfully worth. You see," explained Gran sadly, "most of her good things she sold right off at first when her husband died, to a sharp dealer from Boston way. The prices looked enormous to her, for things that were stuck off up in her storeroom. But she found a bureau she'd sold him for five dollars he sold right back to Miss Marks for a hundred, and Miss Marks priced it twice that in her shop, and sold it. And then a sweet-appearing woman who was staying at the Inn bought a bed for twenty-five dollars and told Electa, just as earnest and true, that it was a good big price but she was glad to pay it, and she went back to the Inn with it loaded into her car and told Molly Jones at the desk that she'd got the bargain of a lifetime, and paid her bill and went. Molly couldn't do anything, only I 'most wish she hadn't thought it best to tell 'Lecta what she knew. Still, 'Lecta ought to be on her guard with strangers, and she certainly ought to get all she can for what she's got left."

"But, Gran dear, I'm no one to consult," objected Joan. "I know only what Dad taught me. He said that a girl who'd grown up with old things, as I have, ought to have a sort of feeling for lines and proportions, and he thought I had it. He used to try me on made-over pieces, and he was so proud because I nearly always knew what had been patched or put together wrongly. I've been with him to the Boston and New York museums and studied some in his wonderful books. But prices, Gran—I don't know the first thing about prices! If you explained the situation to Miss Marks, wouldn't she leave her shop long enough to go up and help Mrs. Appleton?"

"Huh!" snorted Gran. "'Lecta wouldn't let her in the door—takin' that bureau and doubling on it as she did! Maybe it was business, but what 'Lecta needs is kindness, and I told her I'd a granddaughter who knew how to make those two opposites meet, and I was proud—"



"Oh, Gran dear, you mustn't boast!" sighed Joan, and added helplessly, "I'll go up, of course, Gran. Tomorrow Jock comes again, but day after I'll go."

"Day after tomorrow!" Gran's tone was full of dismay. "Why not this afternoon after Jock leaves? I—sorter told 'Lecta you'd be along then, and I said we had supper late these long days, and tonight you had to be back for it—special reason. I didn't want 'Lecta to be urging you to stay to supper there, when she's so pinched."

Joan reached over and hugged her little grandmother. "You're a great manager, darling," she said. "Nobody around you is going to live by the convenient rule of 'Never do today what you can put off till tomorrow.' Well, I advertised 'What you want done, done when you want it,' and the minute Jock departs I'll start being Miss Fix-It for you and Mrs. Appleton."

WHEN Jock had gone, Joan, true to her promise, started up the hill to the Appleton farm. She didn't mind going; she was tired of stooping, but walking was a restful change, and walking beneath the feathery mist of spring greenery on the roadside trees a delight. But, back in the business harness again, she gave small heed to her surroundings. How was she to break the news to Mrs. Appleton that her few remaining antiques were not valuable? How was she to find out what the things were worth? And after that, probably Gran and Mrs. Appleton would expect her to arrange the sale of them: a final difficulty. But hadn't Miss Fix-It advertised—Joan gave a deep sigh as she realized how confident and inexperienced Miss Fix-It had been then.

And then, just as she was feeling very glum indeed, down the hill, in natty tramping khaki, came Betty Wales Watson.

"Hello, Wrennant Wreaths!" she called. "How's Miss Fix-It?"

"In a fix," Joan told her gayly. "Are you an antique fiend?"

"How did you guess?" sighed Mrs. Watson. "My husband will tell you his frank opinion of the way I flag the car at every shop we pass."

"Oh, then you can help me!" said Joan joyously. She explained her errand on the hill. "I'll go and see what's to be seen," she concluded, "and this evening I'll come and tell you, and you'll tell me about prices."

"I couldn't go along with you?" suggested Betty eagerly. "I adore poking into old farmhouses." When Joan reluctantly refused, explaining what Gran had said about Mrs. Appleton's hurt pride and her natural distrust of all strangers, she added, "Come back as fast as you can, Miss Fix-It. And look in the attic! She'll say there's nothing there,—they always do,—but you look just the same. There's *always* something in the attic!"

Joan didn't get to the attic that night; she didn't get much of anywhere. The widow Cross was calling on Mrs. Appleton, and she was what is known in rural New England as "a good stayer."

"How do, Joan!" she greeted the new arrival. "All Hillsboro's hill-climbin' today. 'Lecta told me how your grandma came up this mornin', and as we set here that Miss Watson went larripin' by, and now you've come."

Joan particularly disliked the widow Cross. She was another forlorn woman like Mrs. Appleton, left stranded on a run-down hill farm, with no one to help her wrest a living from her few barren acres. But she was a dour old thing, so different from cheery Mrs. Appleton; trouble and hardship had softened and sweetened one old lady, but the other it had made hard and crabbed and mean. Old Mrs. Appleton would share her last crumbs with her grandchild and her old sheep dog, but the widow Cross, so the neighbors said, was "too mean to keep a barn cat." Looking at her, Joan wondered if the low, rambling Appleton farmhouse that had once been full of lovely things had helped make Mrs. Appleton what she was, while the tall, narrow, ugly, Cross homestead had molded Mrs. Cross into its likeness.

But today the Maytime warmth and loveliness had mellowed even the widow Cross. "I brought 'Lecta a story I found," she told Joan. "We both admire to read. 'Lecta lets me take her Garden and Fireside sometimes; so I thought I'd give her a read of this

Lamplighter book I found in my spare-room cupboard. I don't know how it got there—must 'a' been left there ages back—but it's a fine story. Janet'd like it too, and it's fit for her—not like these trashy novels they write now-days. Got your garden planted, Joan?"

When this question had been answered, she asked another, and she sat and sat, while Joan fidgeted and Mrs. Appleton's replies grew shorter and shorter. But nothing daunted the widow Cross; scenting something in the wind, she had made up her mind to sit it out.

Finally Mrs. Appleton had an inspiration. "Janet's out in the chicken-house," she said to Joan. "You go out through the kitchen. But first you go up and see how pretty Janet's fixed up her bedroom. Go anywhere you want," added Mrs. Appleton with a quick glance at Joan that spoke volumes.

The widow Cross caught the unspoken message. "What you two up-to?" she demanded.

"Up to?" repeated her hostess with dignity. "I don't understand you, Mary. I thought Joan had had enough of old women, and that Janet would be glad to see a young face."

Swiftly Joan explored the old house. Janet had painted her low-post bed, a little stand and a bureau a pale grey, and had hung straight rose curtains at her window—an old linen sheet she had torn in halves and dyed for that, she told Joan. The stand and the bureau were quite ordinary—and the bed posts had been sawed off sometime to make it lower. Nothing there to live on! Mrs. Appleton's room had a lovely table in it; fluted legs and curved corners on the square top. Joan made a mental note of that and the old corner cupboard in the kitchen, as he only hopes. Out in the yard with Janet and the flock of white leghorns, she suddenly remembered Betty Wales Watson's admonition to look in the attic.

"But there isn't any attic!" Janet told her. "Just a shed chamber. That's what usually takes the place of attics in farmhouses, grandmother says. I'm afraid there's nothing there that could be sold. I remember when I came to live here last fall how disappointed I was with it; it's so neat and orderly, and there aren't any haircloth trunks with wedding dresses in them and

love letters, the way the stories always tell. I'll take you there now if you like."

But Joan said that she must go now. "I'll be back," she promised, "after I've found out more about one or two things I saw today. And then I'll explore the shed chamber."

"Come very soon," Janet begged her. "Grandmother is so dreadfully worried."

Mrs. Watson, interviewed later in the evening, said that the table must be very good, but she wasn't so encouraging about the cupboard. "Are the shelves cut in curves?" she wanted to know. "And what shaped panes in the doors? Those are the important points."

Poor Joan couldn't remember, but she promised to go back and look again.

"Go tomorrow," urged Mrs. Watson, "because any day now we may be leaving. And, no matter what they say, look in the attic—the shed chamber. They always say there's nothing there, but you poke into all the dark corners."

"And specially look out for books and pamphlets, Joan," advised Mr. Watson, who had been an interested listener at the conference. "The antique dealers don't go after those much. Appleton is a good old Boston name; you ought to find something in the book line there, I should say. Any first editions of American authors are good—make notes of names and dates, and I'll tell you if they're 'firsts.' Old books are my hobby, you know."

Next day Joan picked flowers and inspected her garden before breakfast, and by nine o'clock she had finished the morning chores and was climbing the hill to Mrs. Appleton's.

"Oh, dearie, I couldn't sell the table," Mrs. Appleton demurred. "It was my grandmother's and my mother's—always stood right where it does now, as long back as I can remember. And the corner cupboard's the same—it would be too lonesome in the kitchen without that old cupboard. Isn't there something else?"

"Well, perhaps," Joan brightened suddenly. "Let's look in the shed chamber, Mrs. Appleton."

"Nothin' there, I'm afraid," said Mrs. Appleton, leading the way.

As Janet had said, it was a bare, clean-swept little room. There was a spinning-wheel. "But nobody wants them!" sighed Mrs. Appleton. And there was a plain little bureau that Joan had hopes of. And over under the eaves in a dark corner she spied a pile of old magazines.

"Godeys!" she cried delightedly. "And just like new. I know those colored plates will sell; they're hard to get now, because the craze for putting them on lamp shades used up such a lot. Five, ten, twenty—there's fifteen dollars for you anyhow, Mrs. Appleton."

"Take 'em along," ordered Mrs. Appleton cheerfully. "Now downstairs I've got some of those old crocks that folks seem to prize."

Joan laid the pile of magazines on top of the widow Cross's "Lamplighter" book in the sitting-room, while she looked at the jars and jugs. Suddenly she realized that the morning was flying, and Johnny's lunch mustn't be late.

"I'll find out about these crocks and the bureau and come again," she promised, and, grabbing the armful of Godeys, she rushed off.

HALFWAY down the hill, when she stopped to readjust her load, which was growing heavy, a little paper-covered book fell out of the pile. Joan stooped, picked it up, held it with her free hand and glanced at it idly. The date on the title page said 1827; an old book but not so terrifically old as books go, and probably of little value, Joan thought with a sigh. But she tucked it back carefully in the pile; one could never tell when some queer enthusiast over musty volumes would pay as much as five dollars, perhaps,

[CONTINUED ON PAGE 258]



Wordlessly, Mr. Watson stared at the slim volume. Wordlessly, he turned the pages, one by one. Then he took out his handkerchief and mopped his brow



## A QUICK SUMMARY OF WHAT HAS GONE BEFORE

RODNEY GRANGER lives with his widowed mother in the harbor town of Porthaven. His father was lost at sea with his ship, and Rodney's mother naturally opposes his greatest ambition, which is to follow the sea. One evening on his way home Rodney meets two suspicious persons repairing an automobile. That same evening he leaves his mother to watch the tramp steamer *Miraflores* loading at the dock. He is invited on board to inspect her and finds himself a prisoner until she has put out to sea. She has two passengers, he discovers—Crowder and Hubbard, the men whom he had met repairing their car outside Porthaven. Before long he meets Victory Brisbane, the captain's daughter, a girl of his own age.

Something mysterious is going on aboard the *Miraflores*. Victory has seen the two passengers poring over great quantities of diamonds in their cabin. Rodney decides that they must be thieves or smugglers, but while he is trying to determine what he should do about it the *Miraflores* touches at a tiny island, and he is put ashore. The ship grounds on a reef near the island and Rodney regains her, being sent down into the fire room to shovel coal for the balance of the voyage. As soon as port has been reached Rodney is locked up, but Victory releases him, and they both escape to the dock. The port is Antwerp, where Victory was born. She suggests that Rodney work his way home as a coal passer, and then disappears into the city. Rodney, at his wits' end, wanders about the streets, where he meets Jan, one of the sailors aboard the *Miraflores*. Jan thinks that Rodney is after the diamonds, and confides that he is also. He buys Rodney a breakfast, and then takes him to an old, tumble-down house, where the diamonds are supposed to be, lures him into the cellar, and leaves him there a prisoner. After executing this coup Jan meets Victory and tells her, with a great deal of pride, how he disposed of Rodney. While Victory is on her way to try to find the house she meets her father, who takes her back to the ship and locks her up. After some hours Rodney breaks his way out of the cellar to find that night has fallen over Antwerp. He wanders about until morning and then searches for an old woman, *Vrauw Voorlaken*, of whom Victory had told him. While *Vrauw Voorlaken* is unable to tell him what has happened to Victory, she does feed him and give him a bath and an enormous Flemish shirt. He leaves her to try to find Victory, and eventually wanders down to the dock where the *Miraflores* is tied up. He sees Victory's face framed in a porthole high up on her side. Not knowing that she is a prisoner, he thinks that she has abandoned him, and leaves in anger. After thinking things over, however, he decides that he may have been wrong, and goes back. Victory is still there and this time throws him a note, explaining that she is held a prisoner, and giving him an address where the diamonds are supposed to be. Uncertain whether this may not be a trap, Rodney goes to the address and is astonished to see Hubbard just coming down the steps. Sure now that Victory is being honest with him, he walks, as fast as he can in an unfamiliar city, to the American consulate. It is evening when he finally reaches it, and the Belgian butler takes him for an ordinary beggar and refuses to allow him to enter the house. Worn out, disappointed and exhausted, Rodney sits down to wait on the consul's doorsteps. Half an hour later he feels a heavy hand seize him by the collar.

## CHAPTER NINE

*Hare and Hounds*

ROD twisted around to see the butler standing over him. The man had opened the house-door noiselessly and now sought to remove Rod forcibly from the neighborhood. The ragged loafer had already sat half an hour on the doorstep. Rod moved on peaceably enough, merely inquiring where the consul was dining.

"To inform you such a t'ing!" snorted the butler.

Rod walked around the block, slipped back in the shadow of the wall, and this time ensconced himself where he could not be spied upon. Full dark had long since come, and it was not difficult to stay concealed. Rod was terribly afraid of falling asleep and missing the consul's return. The only possible advantage of sleep would be that it might make him forget his hunger. He fought it doggedly, but it overcame him at last. That was not unnatural, for it was two o'clock before the closing of a motor's door roused him as if it had been a pistol shot. He sprang up and was at the side of a man in evening clothes, who had alighted almost before he himself was well awake.

"I'm an American," he began huskily, in a hurried voice thick with sleep. "I want—"

"A franc for another drink?" the consul inquired coldly, his foot on the stone step.

"Oh, you've got to listen to me!" Rod implored, springing up beside him. "You've got to! You're the last hope, and it's horribly important!"

The consul yawned. The party had been entirely too long, and something of a bore.

"I'll listen to your hard-luck story in the morning," he said. "The office opens at ten." He was fitting his latchkey to the lock, turning it. With one last desperate burst Rod flung himself up the steps and flattened against the door.



Rod couldn't help grinning as he clambered out after the police officer, who was covering the two with a pair of revolvers. "Seems to me," he said, "that we've met before under circumstances like these" [PAGE 291]

# Lubber's Luck

"I know where about a million dollars' worth of diamonds are—American diamonds—stolen—" he said in a low voice. "And you're the only person that can help get 'em, now."

The consul straightened and peered at Rod through the night. Perhaps he caught just a hint of the earnest honesty in the strained young face. Certainly it trembled in the boy's voice.

"What are you saying?" the consul asked, gravely, this time. Cables had been busy of late with news of a great jewel theft in New York. Perhaps the boy had merely hit upon this way of using to his own advantage the newspaper headlines.

"Oh, if you'd only let me tell you the whole business," Rod begged—his nerves almost gone to pieces. "Please, sir, listen to the story and try to believe it!"

"Come in," said the consul, shortly.

So Rod sat on the edge of a gilt and rose satin chair, weary and disheveled, his eyes burning rather wildly below unkempt locks of hair. Opposite him the consul, in faultless evening dress, sat and looked shrewdly at the boy with narrowed eyes. It had grown to be a rather long story; Rod told it in bursts, wondering, himself, if all that about Kip's Arm, for instance, had ever really happened. It was hard to tell from the consul's face whether or not he believed the tale. Occasionally he raised one eyebrow. Twice he whistled softly. When, at last, Rod had nothing left to say, the consul rose.

"You're half starved," he said. "Stupid of me not to have realized it sooner. Just stay where you are."

He went out quietly, and Rod, dazed and spent, sat gazing dully at the high white and gold salon, and the face of the ormolu clock marking ten minutes of three. When the consul returned, it was with half a cold chicken, part of a veal pate, two buttered rolls, and a bottle of milk. While Rod ate, the consul leaned on the table and said:

"It's a very curious thing, but I believe you. Whether

it's because your tale is so incredibly wild that you couldn't have invented it, or whether it's because you've got such a good square New England face, I don't know. You don't seem to be aware of the fact that a very great diamond robbery was committed, in New York, at just about the time you began your travels. The firm of Marquier lost a million, in gems, and the thieves made a completely baffling getaway. Mr. Marquier is on his way here, but I believe it is only because sooner or later most stolen diamonds find their way to Antwerp to be recut. If your story is straight,—and it certainly is a line worth working on, at least,—you'll have made a most amazing single-handed scoop, young man."

"I've bungled badly enough, so far," said Rodney. "Gosh, but this is good food! I just haven't been able to do anything, is the trouble."

"You've stuck—that's the next best," said the consul.

As for Rod—what with weeks of strain, the relief of getting his story over at last, and the sudden effect of food after aching hollowness, he sank gently down, head upon arms on the table, and slept deeply.

"Game lad," said the consul. "Come on to bed."

Rod struggled up. "No, no! What a time to go to sleep! We've got to get those sparklers. What are you going to do?"

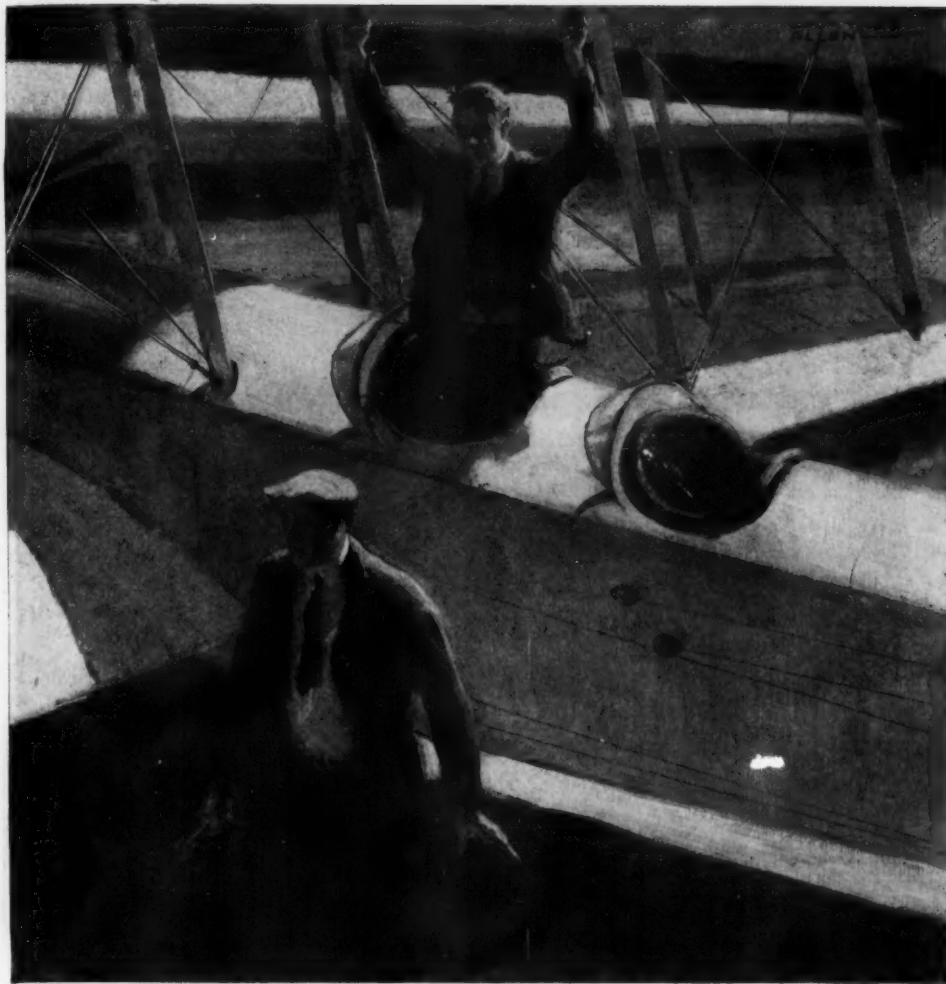
"Nothing that you can help in," said the consul. "Come on—to bed!"

WHEN Rod waked up it took him some time to believe in the clean pajamas and the good bed.

He had been dimly aware of them when he fell into an abysmal sleep,—and of the gorgeous bath which had preceded them,—but now they filled his refreshed awakening with a deep luxury. So did that old suit of the consul's, laid out beside his bed. The remnant of his original trousers and the Flemish shirt had mercifully disappeared.

On descending, Rod was told by the butler—the same





The men were white and shaking with rage. Hubbard made a motion to dash his wrench at Rod. . . . French and English oaths and orders spattered the air like machine-gun bullets

## By E. B. Price

ILLUSTRATED BY COURTNEY ALLEN

butler, distressingly embarrassed—that the consul was in his office and wished to see Monsieur as soon as he was awake. Rodney found his host at the telephone and paused on the threshold. The consul put down the instrument.

"I was just talking to the police again over a private wire," he said. "Been talking to them on and off for some hours. Had your sleep?"

"A great one," Rod assured him. "Thanks for these—much better than my late rig."

"Now you look more the way you ought," the consul smiled. Then he grew serious. "Will you describe those two men again, Granger—very carefully?"

Rod visualized Crowder and Hubbard and minutely detailed their appearance.

"If you're right, and I'm right, and the police are right," the consul said, "one of your friends is wanted and has been wanted by the Belgian police for some time. Mr. Hubbard—born Leroup—is a Belgian citizen, in spite of his American residence. This is not his first offence, but he's a slippery gentleman and hard to lay hands on. Hubbard is quite a new name, but we have more than a suspicion of its bearer."

Rod whistled. "Is that what?" he said. "Does it help?"

"Does it?" the consul cried. "Don't you see that this gives us—or rather, the Belgian police—the right to enter that house? We'd be helpless, otherwise. Now your part is to come along and identify Hubbard. They'll know him as Leroup, fast enough, but the diamonds you're interested in are America's business, not Belgium's. Come along; the house is being watched, now."

Rod's blood was beating in his ears as they glided through Antwerp in the consulate car. Neither he nor his host remembered that he had had no breakfast; after all, that strangely assorted feast in the small hours had not been too long ago. A few blocks from 48 Rue

du Cheval, they were joined by a police official in plain clothes, armed with a search warrant. He clasped Rod's hand in both his.

"Monsieur," he said earnestly, "if you are right, it is a great service you will do us. Never do we know where to find him! We have look in many place and fail. 48 Rue du Cheval! Who would figure such a locality!"

The house looked exactly as it had the day before—calm, imperturbable, eminently respectable.

"But what shall we do if we can't get in—or if they resist?" Rod whispered, as the car drew up before the door.

"There is a cordon of police drawn around the house," the consul said.

He mounted the steps and rang the bell like any visitor. To Rod's huge surprise, the door was opened by a very neat Walloon servant girl, who said that her master was not at home, and would the gentlemen leave their *cartes de visite*!

"We shall wait," said the police captain in French, and the three stepped quickly within.

Rod was never quite sure of what happened next. There was a little gray-faced man he had never seen before; there were shots, and running feet, and the bursting forth outside of the hidden ranks of police. Then Rod, flinging open a window, saw something that brought a cry to his lips.

"There they go! They're here—escaping!"

For Crowder and Hubbard, rising from nowhere, were leaping into the consul's car, which stood at the curb. For the sake of privacy, he had driven it himself,

so there was no chauffeur to object. With a shriek of "*Mon dieu—c'est Leroup!*" the police captain vaulted through the window much more nimbly than anyone would have thought possible, considering his plumpness. Rod next found himself in the sidecar of a motorcycle, being driven crazily by the consul himself, while just ahead the police official manned another.

"Do you suppose they have the jewels?" gasped Rod. "Or are they in the house?"

"If they're in the house, the boys there will get 'em. If Leroup has 'em, we will," yelled the consul. He had dropped twenty years and seemed to be enjoying himself more than Rod.

BUT the consul was over-confident. The consulate car was a good British one, and it had a head start. The pursuers lost it in the tangle of old streets and alleys they had now reached, and, though they separated and circled, scattering children, dogs and market wagons in their noisy flight, they caught not even a glimpse of the fugitives. The two motorcycles drew up beside each other to consult.

"Where would they be likely to go?" Rod wondered. "The ship, do you think?"

"By the way," the consul cried, "if all these things hadn't happened to prove your yarn, I'd be doubting it. We searched the shipping-lists and had the harbor-master on the wire—and no such ship as the *Miraflores* is listed at all." He looked rather sternly at Rod.

"That's queer," Rod said. "Has she gone? But that wouldn't affect her being listed as arrived. There's something shady about that."

"Even shady ships are noticed when they reach a port as large as Antwerp," commented the consul.

"Oh, glory!" cried Rod, growing red. "I know what it is! I never told you that she changed her name to *Mangosteen*, in mid-ocean. I always think of her as *Miraflores*, and last night I could hardly think at all."

"Oh, that's the sort she is, is it?" said the consul. "Well, let's go to her, on the off chance. They might count on getting away with her before we thought of it, if she's just ready to sail."

"She'd almost got her cargo, yesterday," Rod said, as the motorcycles roared into action again.

There lay the waterfront, with its busy shipping and the gray river Scheldt behind. There sounded faintly the carillon strain, and Karolus striking noon. All just the same—though Rod felt he had left it so long ago. Yet not the same—for, though they searched where she should have been and where she shouldn't, the *Miraflores*—alias *Mangosteen*—was gone.

"Then we've lost them," said Rod, his face falling. He thought, too, of Victory, and wondered whether her father had released her now that they were safely under way.

"I haven't the faintest idea they are on board," said the consul. "We could too easily stop her, even now. Find out where she's going and have a warrant out for her before she docks. I'll do that anyway. The only thing to do now is to order

all the trains searched at the border, and all the cars stopped on the roads that lead out of Belgium. Of course they have to stop anyway, on account of the line, but the customs people must be posted."

He straddled the motorcycle again and set it going. The joy of the chase and imminent capture had left his face. His age and authority had come back; he looked tired, and very much out of place in his trim morning clothes astride the brawling motorcycle. He was by no means old,—not yet fifty,—but a life of visiting passports and attending official functions had given him a certain formality of appearance. Nothing like the present adventure had ever before happened to him, and he had plunged into it rather more vigorously than he had intended. But now that the thrill of the hue and cry was over and the culprits



"Oh, you've got to listen to me!" Rod implored.

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*The instant the captive dog felt itself free of the net it tried to leap overboard, and struggled so wildly when brought up short by the line that it nearly choked to death*

## The Black Dogs of Newfoundland

By C. A. Stephens

ILLUSTRATED BY HAROLD SICHEL

**T**HAT faithful friend of man, the dog, was once a gray wolf, naturalists tell us; but even the naturalists confess themselves at a loss to account for that splendid animal, the black Newfoundland dog.

Fifty years ago, there were many small packs of these animals running wild in the great island of that name. Where did they come from? Where was their origin? Were they native to Newfoundland, or did some early voyager bring them? Were they black Norwegian dogs that the Norsemen set free there a thousand years ago? Or, as some have suggested, did they reach those shores from the wreck of a French ship of the days of Jacques Cartier, Roberval and Frontenac?

One guess is as good as another. The Norse vikings, those sturdy rovers of the sea, Leif Ericson, Thorwald, Thorfinn and many others, came down the American coast from Greenland to Helluland and Markland,—as they named Newfoundland and Nova Scotia,—and nothing is more likely than that, seeing herds of caribou ashore, they landed with their black dogs to hunt. The northern parts of Newfoundland still contain countless caribou. Some of those black Norse dogs may have been lost in the chase; or, finding game so abundant, the dogs themselves may have preferred to remain ashore rather than go aboard those cramped old viking ships.

This at least is my guess, and this is also the conclusion to which Cousin Addison and his young fellow naturalists, Alpheus Hyatt and Nathaniel Shaler, came

while on a summer voyage to Labrador and Newfoundland in a schooner which Professor Agassiz chartered for them, back in the days when all three were students at the scientific school at Cambridge, Mass.

The schooner lay for five days in Ignornachioix Bay: the locality where the giant octopus of which you read some months ago, now exhibited in the National Museum at Washington, was captured.

It was while at anchor there, off the mouth of one of the many small salmon rivers that enter from the gulf coast of Newfoundland, that the boys noticed the black heads of two animals swimming in the pool at the river mouth.

The animals were fishing, and each of them was seen to capture a salmon. Addison and Shaler at first thought them young bears, but Hyatt declared that they were dogs—wild Newfoundland dogs. He was very anxious to capture one; and, as their schooner had been a fishing craft and still had a cod net aboard, he suggested setting it across the pool on the chance of catching a dog in its meshes, if the animals came back there to fish.

The net was accordingly overhauled and during the following afternoon was set out. But the schooner met with a strange adventure that night. Shortly after twelve o'clock the vessel was violently bumped and shoved to and fro at her anchorage. The skipper—Captain Hawkes—came hurrying to wake the student passengers.

"Here's something you will want to see," he shouted. "A school of white whales has come into the bay,

hundreds of them, and they are tearing round like mad! They are a great sight."

**I**T was a wild spectacle. Moonlight flooded the water, and on all sides the cove was flashing, silver-bright. Everywhere rose countless sparkling jets. The soft sounds made by the "blowing" of the big fish were continuous, to which were added frequent and alarming bumps of their heads against the schooner's sides.

No one knew what had brought these creatures there in such haste. The entire school appeared to be in a desperate hurry to go somewhere, or get something.

Strictly speaking, these fish were not whales, but large white porpoises, called beluga, from eight to fifteen feet in length, and weighing as much as two tons. They usually go in schools, occasionally of thousands, together, and at times seem possessed by a mad demon of impetuosity, leaping clear of the water and dashing headlong onward at the speed of a railway train.

Whether they were seeking food, or had become accidentally embayed there, was not easy to determine. As Addison stood by the rail watching them, one leaped from the water and fell with half its body on the rail, which creaked beneath its weight.

Skipper Hawkes grew alarmed lest the impact of their heads might start the schooner's seams sufficiently to cause leaks. He began firing a rifle among them in the hope of frightening them away. The reports produced little effect. The wild rush continued unabated for an hour or more, when the school suddenly left the bay as precipitately as it had entered it. At this season of the year day dawned in these regions at two o'clock in the morning, and by that time not one of all that crazy multitude was to be seen. The school had gone on its roving way, and there seemed no great likelihood of its return.

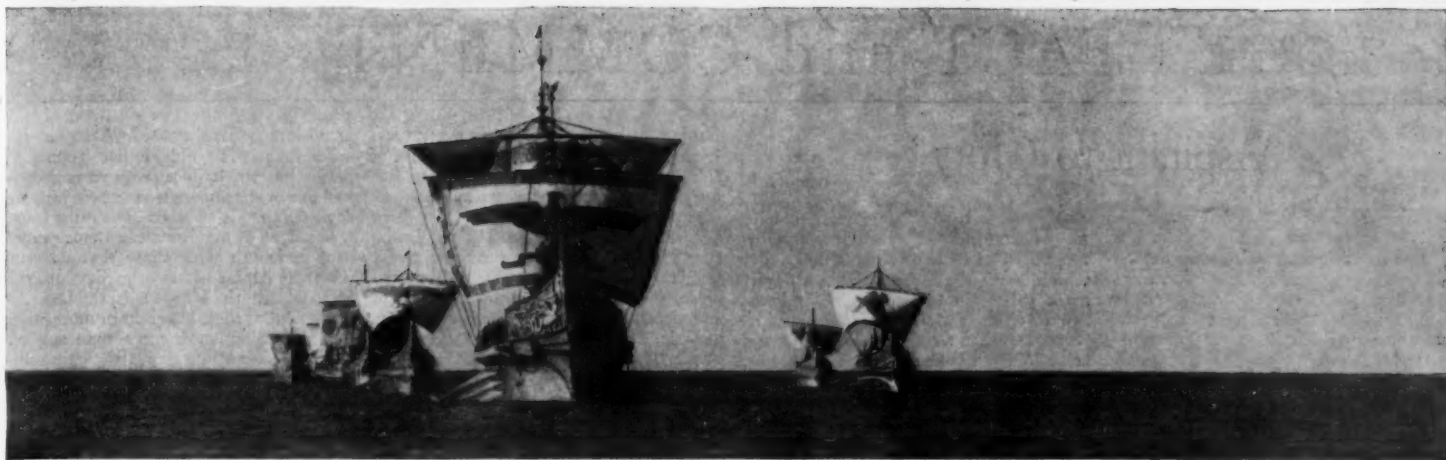
Shortly after sunrise Addison discovered that the cod net which had been set for the dogs had disappeared from the pool at the river's mouth, and also that not a salmon was now to be seen there. Later, one of the buoys, attached to the net, was seen afloat half a mile down the bay. The skipper proceeded to recover it, and the net

[CONTINUED ON PAGE 288]



*These fish were large white porpoises weighing as much as two tons*





When a director calls for a fleet of triremes like this, the property department must produce them. This fleet was photographed off the California coast

# If It Can't Be Done—He Does It!

Here is the story of the man to whom Hollywood's hardest questions are brought

ON Hollywood Boulevard, directly opposite the public library, there is a two-story building that houses the craziest telephone in the world. The man who listens to it hears questions like these:

"How would the bride be dressed for a Samoan Islands marriage ceremony?"

"Is it true that the practice of hanging gifts on a tree originated in Egypt, long before the birth of Christ?"

"What inscription is carved on the face of the Blarney Stone?"

"In the early days of America were women compelled by law to bob their hair?"

"What is an Ikon?"

"Can you deliver twelve dead cats by two o'clock tomorrow?"

And more, many more, like that or worse. For the telephone bears the number which is given in the directory for Associated Costumers, and the amazing man whose duty it is to listen to the telephone is Edward Phillips Lambert, who is the walking encyclopedia for the entire motion-picture industry. He is far more than the costumer which the title of his firm might lead you to suppose. He is ready at all times to open the storehouse of his unique memory and experience for the benefit of the directors, producers and stars who come to consult him. He has the remarkable gift of being able to photograph the most minute details of a scene or an event on his mind—and it is a photograph which time does not seem to fade. And his power of description is nothing short of amazing.

Many months ago I was sitting in a projection room with Mr. Lambert and Erich von Stroheim. We were reviewing miscellaneous bits of foreign news reel that had to do with the locale of von Stroheim's picture, *The Wedding March*. One of these bits showed eight prancing horses drawing the royal carriage of the late Emperor Franz Josef of Austria.

"That's it," snapped Von. "That's exactly what I want. Get me that carriage, the uniforms worn by the Emperor's lackies, footmen and postillions, and the harness on those eight horses!"

I laughed quietly to myself in the darkness. I didn't want Von to hear. He would want something impossible like that carriage and its equipment. His well-known mania for exact detail was cropping out again. But the smile was suddenly wiped from my face as Mr. Lambert said:

"It will be expensive, but I'll get it for you."

"Never mind the expense," roared Von. "Get it!"

Something of a scandal was created abroad when this royal carriage was taken from the Vienna Museum. Along with it came the royal coat of arms that adorned it, the actual uniforms worn by the Emperor's men, and the matchless harness of the eight horses which drew the carriage. They now repose in Hollywood. Mr. Lambert makes a specialty of doing the impossible quickly.

In walking about the costume floors of this establish-

## By Fred Gilman Jopp

ment one discovers uniforms and costumes of every nation and period of history—classified according to type. There are cowboy outfits, waiter's costumes, Chinese coolie dress, miner's caps, every kind of navy and army uniform. In fact there is every type of apparel worn by human beings since the beginning of time.

### Where White Clothing Is Never White

But you could search for days and not find one single piece of white clothing. Why? Because the first rule of every studio is an avoidance of dead white materials. White, catching the artificial lights, produces a phenomenon known as halation. In the finished film this produces a ghostly shadow which seems to follow the players on the screen. Hence, shining white dress-shirt bosoms and the like are taboo, and white clothing for screen purposes is always a light yellow.

This photographs a clear white.

And these tricks of color go further than dress. I recently saw Lon Chaney partaking of a screen meal of light pink frankfurters and blue sauerkraut! If Lon's hot dogs had been photographed naturally, their too vivid red would have made them appear black on the screen. And the sauerkraut had to be tinted



A triumph of skill and ingenuity is this beautiful scene from "Uncle Tom's Cabin," showing one of the famous Mississippi River paddle-wheelers about to leave her landing. Problems such as this tax the property department's resources to the utmost. In oval, Edward Phillips Lambert

## How Many of These Questions Can You Answer?

1. Who was the only movie star to ever make up his eyeball?
2. What big movie comedian has a nine-hole golf course in his front yard?
3. What is Ernest Carlton Brimmer's movie name?
4. Which Irish actress was once a school teacher in New York?
5. What actress will not wear anything but silk costumes?
6. What actor, with Indian blood in his veins, was once a lumberjack and a railroad fireman?
7. What Western star is one of the very few white men to master the Indian sign language and is a recognized authority on the North American Indian?
8. What male star has an excellent tenor voice?
9. Who has the largest feet of any actor on the screen?
10. Who are said to be the ugliest two men in the movies?

(ANSWERS ON PAGE 295)

with huckleberry juice. And how would you like to drink pink milk?

Cameras have been so perfected in the last few years that the quality and texture of fabric show with remarkable accuracy. A cheap fur pelt will tell its own skimpy story, and an ordinary bit of store lace cannot pass for Duchess. For that reason, because the camera will not

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# FACT and COMMENT



## "Aspirant to Glory"

IT was May of 1927. Nungesser and Coli, great flyers of France, had been lost on their attempt to span the Atlantic in one continuous flight. Strain and pessimism filled men's minds. Transatlantic flights, the conquest of the Atlantic by air, were labelled impossible, suicidal.

"These attempts," said the French tactician, General Duval, "are both immoral and shameful. Neither sport nor science is furthered by them!" General Duval's opinion was reflected everywhere. "We are not ready," people thought. "Delay a little, until there are newer and better planes and motors. Delay—"

One day, there emerged in the news a young man who had been piloting a mail plane not long before. After more than a year of effort, he had found backers who were willing to pay for a plane and for preparations. Now he was high in the air somewhere in the West, on his way from San Diego to New York. That cross-country flight was an omen. The young man landed in New York with a cross-country time record in his possession. He was Captain Charles Lindbergh, air-mail pilot.

The great New York dailies casually noted his entrance as a new contestant for the \$25,000 Orteig prize for the first successful New York to Paris non-stop flight. They also noted the comment of a then well-known Canadian ace. "It is a physical impossibility for one man to pilot an airplane across the Atlantic," said this expert.

Which was right, the pessimism of age or the courage of youth? The rioting mob at Le Bourget answered that question. Out of the sky there landed a silver-winged plane in their midst; the door of the cabin opened, and there stepped out a pale, tired figure, prepared to present letters of introduction; not prepared for the greatest greeting a hero has ever known.

BUT Charles Lindbergh, weary with the strain of 33 hours of continuous flying, had done a much greater thing than span the Atlantic. He had spanned a gap in men's minds. There had been youthful conquerors before: Alexander, master of the world before he was 30; Keats, an immortal poet at 23; Pitt, prime minister of England at 24.<sup>1</sup> But none of them had done as sudden, as courageous and as splendid a thing as Lindbergh, floating off alone to almost certain death, without armies, publishers or parliaments to sustain him. He was youth triumphant.

CHARLES LINDBERGH justified youth to the world. That the knowledge and experience of maturity might profit by the courage and enthusiasm of youth had not occurred to many people before. It occurred to them now with increasing force. They began to notice that the great men of aviation were all young men—

young men whom failure and disappointment had yet to make hard and cynical. They are doubting now the old French proverb that has locked so many minds against progress: "*Si jeunesse savait, si vieillesse pouvait*"—if youth but knew, if age but could. They realized now that youth can both know and accomplish.

AND if in May we celebrate a Memorial Day which commemorates the end of the sad and bloody struggle of our Civil War, why should we not also celebrate the day on which Youth took its rightful place in the world? The agonies of the Civil War are over; only a few living men remain with us to perpetuate the memory of those

tragic years. Let us forget them—not the men, whom we shall always honor, but the years. Let us substitute for a day which marks the end of sadness a day to mark the beginning of something great and inspiring and noble. Charles Lindbergh landed on May 21 at Le Bourget field. Why should that not be our New Memorial Day? It would be a Memorial Day to courage, accomplishment, daring—the attributes of youth that the world needs so much. There would be in it no sadness, no regret; only the realization that youth has at last come into its own.



### About Tunnels

WE hear from London that they are again discussing hopefully the magnificent project of a tunnel between France and England beneath the English Channel. That would be the greatest of all tunnels, and probably the most prof-

itable. Millions might use it every year. It would make England in effect a part of the European continent, as it was in fact forty or fifty thousand years ago.

Hitherto British sentiment has been against it. The English have always regarded the Channel as the moat about their castle, the indispensable and impregnable defense of their shores. Airships and airplanes are shaking their confidence a little. Perhaps in the end they will decide that the sea is no longer the bulwark it once was, and consider driving a road beneath it, as the Parisians have driven boulevards through and under the old fortifications of their city. Then we shall see the twenty-mile tunnel constructed between Dover and Calais, and railway trains will speed between London and Paris "without change."

Meanwhile, we have built a very sizable tunnel here in the United States. The bore of the Great Northern Railway through the Cascade Mountains in Washington is almost eight miles long. It cuts out thirty miles of winding, climbing track through the mountains and renders unnecessary miles of protecting snowsheds. Only a little while ago, the Moffat Tunnel

in Colorado was opened. That is six miles long. The old Hoosac Tunnel in Massachusetts, built seventy years ago, is still one of the impressive pieces of railway engineering. It is nearly five miles long.

But none of our American tunnels compare in length with those that underlie the great Alpine passes—the Simplon, the St. Gotthard, the Mont Cenis, the Loetschberg. All of these are eight or more miles long; the Simplon is more than twelve.

Tunnels are by no means the extraordinary undertaking they used to be. When the Mont Cenis was built, hand labor was used, and the bore advanced only nine inches a day. With modern machinery, it is not unusual to drive a shield forward a hundred feet or more in a day. Engineers will guarantee to tunnel anything except the ocean. Perhaps they could do that if there was money enough to pay the cost.



### Winter in the Antarctic

THE Antarctic summer is over, and it is possible to get some connected idea of what the air-explorers have discovered during that season. There have been two expeditions on the Antarctic continent this year, both under the American flag, though the leader of one is an Australian by birth, the distinguished explorer, Sir Hubert Wilkins.

Sir Hubert is the man who, after innumerable misfortunes and disappointments, succeeded in flying across the Arctic ice from Alaska to Spitzbergen, one of the greatest of achievements. He is in command of a small but well-equipped expedition, which, so vast is the Antarctic continent, has its base some two thousand miles from that of Commander Byrd. He has made several successful flights, along the northern coast of Antarctica, and has discovered that Graham Land, that long curving finger with which the southern ice continent seems to be continually beckoning to South America, is not really solidly connected to the main land mass.

Americans will take still greater interest in Commander Byrd's enterprise, which not only is supported by American money but is American in leadership and personnel. This expedition has been so well organized that its experiences have so far been as uneventful as polar conditions make possible. Commander Byrd has made numerous flights both along the ice barriers, eastward, and deep into the interior, toward the South Pole. He has added a great deal to our knowledge of mysterious Antarctica; he has discovered new ranges of mountains and mapped miles of coast. Another year will enable him to draw pretty accurately the map of at least half of the immense continent.

No previous polar expedition was anything like Byrd's, either in the thoroughness with which it was prepared for its work or in its ability to remain in constant touch with the outside world. Radio has accomplished the latter marvel. Hardly a day passes that Byrd is not talking with his newspaper connections in New York. No doubt he and his men heard President Hoover's inaugural as it fell from his lips in Washington. Nothing good or bad can happen to Byrd and his men without our knowing it almost at once.

The Antarctic winter is upon them now. There will be no exploration for several months. But we expect that Byrd's arrangements for the winter will prove as perfect as those that have carried his party so well through the summer.

His genius for exploration in the frozen polar regions has already been demonstrated at the North Pole. The world will await with interest his results at the South Pole.



## Memorial Day

By Charles Hanson Towne

SOMETIMES I think our gallant dead are more alive than we;  
Moving beyond—and through—our world, a mystic company;

Seeing the hawthorn surge and break in many a trembling lane,  
Hearing, like us, the little drums of the first lyric rain.

They march, a strong, embattled host, through the great heart of man;  
They cannot die, they cannot pass—this deathless caravan.

For they are part of living deeds of valor, flame and fire;  
They have not died, because they live of our own high desire.

They heed the soft tread of the years; they know, like us, the bliss  
Of mornings when the world, at peace, feels heaven's adoring kiss.

They too are conscious of an earth sweet now with sun and showers.  
Oh, tell me not that dreamless sleep is theirs in these bright hours.

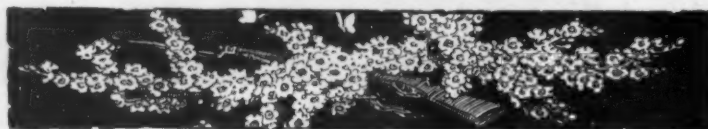
They cannot slumber silently, when beauty theirs by right  
Is flowing over battlefields now flowery and white;

They cannot lose the best of earth, the brown and billowy loam,  
The loneliness of quiet hills, the land that was their home.

Yes, surely they, mysteriously, have knowledge of this place  
And move in calm battalions where they rushed through War's disgrace.

They are a part of Nature now. The world they died to save  
Reveals to them its old-time grace; not theirs the cruel grave.

Oh, when the late May blossoms shine in every lane and fen,  
I hear the ghostly tramping of long regiments of men!





ADVISORY COUNCIL: E. K. Hall, Chairman Football Rules Committee; Julian W. Carriss, rowing authority and referee; Dr. James E. Naismith, inventor of basketball; Watson Washburn, former Davis Cup tennis player; Robert C. Zupps, football coach, Illinois; John T. Doyle, American Sports Publishing Co.

# SPORT

EDITED, UNDER THE DIRECTION OF THE YOUTH'S  
COMPANION'S SPORT ADVISORY COUNCIL,

By Sol Metzger



## Playing First Base

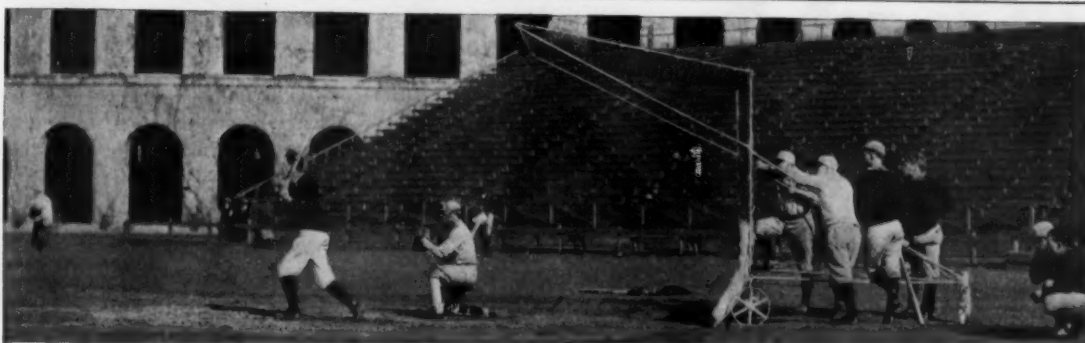
THERE is more to the art of playing first base than merely fielding or catching thrown balls, else any boy could cover this assignment quite nicely. The star first baseman knows all the tricks of his trade. They are not hard to decipher. As he is the one player who makes the great majority of putouts, it stands to reason that he must be able to catch the ball as early as possible in its flight to him from an infielder to perform creditably. In short, he must make the percentage of plays in his favor.

Unless a runner is on this bag, the first baseman plays over toward second, the distance depending upon his speed in regaining the bag and in covering hard-hit balls down the baseline from home plate to first. A hit that gets by him here is usually good for two bases.

If the hit is not in his direction, his job is to get to his base as quickly as possible. Once there, he places himself on the inside of the base, both feet under him, facing the fielder who is handling the ball.

In this way he makes of himself a target for the infielder to throw to. He is also as close to the infielder as possible and not in the way of the runner who hit the ball. Don't try to block the runner off from the base he is entitled to. Bad feeling, injury and illegal play result. One should be a sportsman in any game and play it not only according to rule but with a high regard for its ethics and cleanliness.

[CONTINUED ON PAGE 281]



Keynote

Practice is as important for a college team as it is for the big leaguers. Here is batting practice, with a group behind the net looking the batter over

## College Baseball: A Fast Game

A great college coach tells you what to look out for

By Byrd Douglas

INTERCOLLEGIATE baseball has always seemed to me to be a fast brand of baseball. This opinion holds good now after ten years of coaching, but it started forming when I first went out for the Princeton team in 1913.

Admitting, therefore, that intercollegiate baseball is fast, how can the prep or high-school player better prepare himself to make the grade?

First, you should hold to the opinion that baseball, like other sports, is an exacting game, if you are to be successful in college. There are any number of schoolboy athletes who seem to think that, if they are fortunate enough by faithful application to make one team in school, they can make others by just going out. I will admit that such an unfortunate condition is often allowed to prevail in schools, because of either lack of numbers out for a given school team or the physical size of some boys as compared with others or a clique between inexperienced coaches and experienced athletes. Such a scheme of things cannot exist in college where competition is keen. It is wrong, and when a boy comes to college he will soon find out that the men who play football, baseball and basketball in college are qualified to play them all equally well, and that in their school days each sport exacted from them their unqualified devotion to details during the time each game was being played. If you make competition in your school athletics a joke, you may rest assured athletics will make a joke of you in college. Not that men who play other sports do not receive their just notice, but mere participation in other college sports cuts no particular ice in selecting a varsity team. But the fellow who does play on more than one varsity team strictly speaking has gone through his share of competition both in school and college and has studied each sport until he has become sufficiently proficient to win a position on each team irrespective of other athletic ability. In other words, there is no such thing as

making a team on a reputation gained in another sport, instead of in playing ability.

Baseball in school should bring about a gradual efficiency in playing ability and a more serious intention as the boy grows older. One of the evils in school which work a hardship on the boy in college is an attempt to beat the game itself as a developer of ability and temperament.

## Slow Development is Best

This tendency to develop too fast may cause many a boy to overlook some of the fundamental details which are necessary if he is to be successful in fast college baseball. While I would have a boy eager at all times to try out anything and everything, I should nevertheless prefer that he stop long enough on the fundamentals so that later on he will be able to take in the finer points of the game. It is best for the boy to stick to one detail of the game at a time until in his mind he feels he has mastered it. This is a generality that is true of almost all sports. The conscientious player may often be surpassed, in the early stages of practice, by a more flashy performer, but the boy who forges ahead slowly but steadily need have no fear of the eventual results. He'll win out without question.

No boy ever became proficient in a game by any better method than by just playing the game on the field, taking everything as it comes his way, running out every ball he hits and playing for all he is worth. There is no coach like the game itself, and every game, if it is played seriously (which is the only way to get any pleasure from it), will gradually help in playing faster baseball. It is splendid never to lose sight of the fun of playing the game, and it is perfectly natural for school-boy baseball to have some hilarity connected with it; but I say

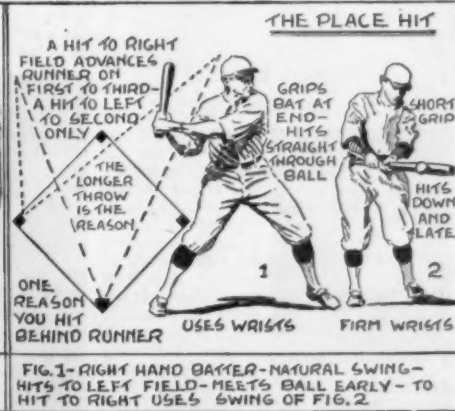
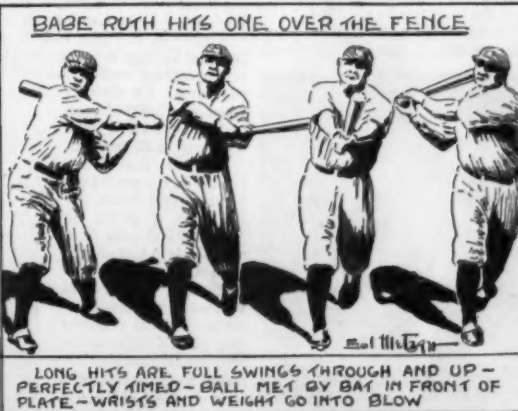
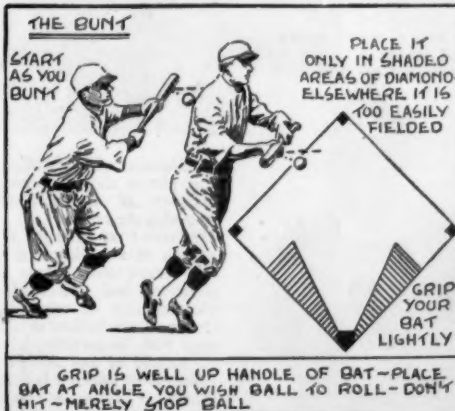
frankly that the boy who also plays the game seriously and with a determination to really learn it is the boy who later on usually makes the varsity team. If, on the other hand, you go at the game only to pass away the time and refuse to grow gradually into its mechanics and science, you will find by the time you reach college it is too late to begin.

This brings me to my next point. College teams are fairly well balanced. Some are top-heavy, but the vast majority have nine men who are all fairly good base-runners, fielders and hitters. This, of course, is the ultimate goal of any coach. The trouble is that most school athletes, because of lack either of guts or of knowledge, will not keep hammering at their weaknesses so as to become fairly good in all departments of play. The worst part of the failure to do this rests in the fact that the cure for a weakness can be accomplished in school often before it cracks an athlete. No matter how terrible it may sound, there are many school athletes right now who love to hit the ball and yet will hardly get excited over making a bum peg to the wrong base. This is just one example. The college coach has no right to expect more than the average ability in all branches of the game, but in all fairness he should get a candidate who has done his share to overcome his troubles.

## Your Natural Style

Lastly, the boy should come up to college a natural and not a cramped athlete. He should sink or swim on what feels right to him. The fellow that cramps his natural style is trying to beat himself. This idea should be carried right out on the field. Just as long as an athlete reaches the same goal of perfection as another athlete, what difference does it make how he stands at the plate or holds his bat? The originality of the way a boy moves, throws or hits is just as big an

[CONTINUED ON PAGE 281]





# THE MARCH OF SCIENCE



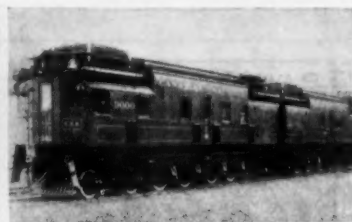
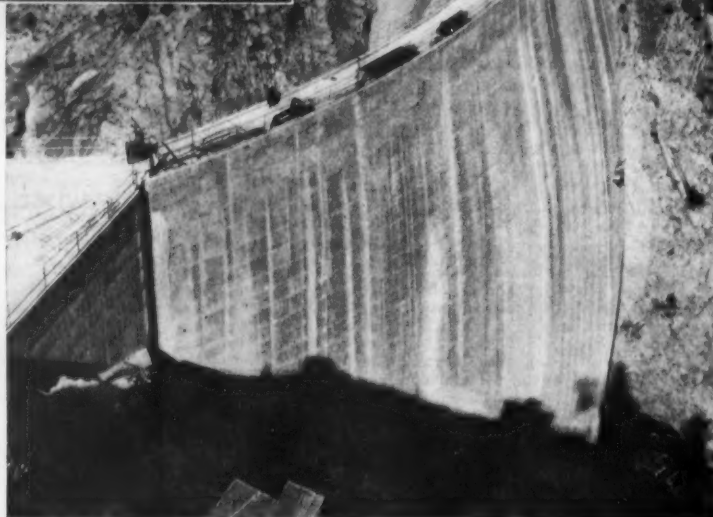
## Giants of Engineering



*Size Makes These Projects Spectacular*

THE strange mass of steel shown above weighs 55 tons, more than the largest airplane ever built, and yet it is only a ship's new rudder—that of the Berengaria. Its huge proportions can be judged from the figures of the men who are working on it. More than one hundred mechanics and laborers were required to dismantle the old rudder and rebore the stern post in preparation for the new one. The cone-shaped pieces of metal on the left are the bearings on which the rudder will turn. You are looking at it from the bottom; when installed, the flange in the foreground will be almost even with the keel.

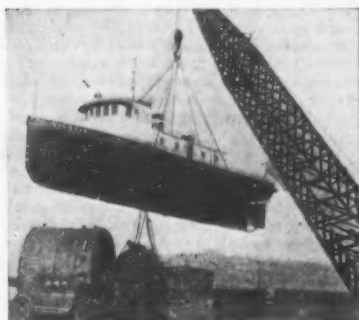
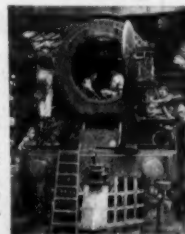
At the right is the recently finished Paomía Dam, 365 feet high and said to be the highest in the world. It stands in the San Fernando valley of California, a part of the flood-control system of Los Angeles County. Twenty-five square miles of the Sierra Madre mountains are drained by it. Its construction is known as the constant angle arc type, capable of withstanding a pressure of 600 pounds to the square inch. It took four years to build it, and \$2,500,000 went into its construction, but many times that sum will be saved in the prevention of disastrous floods. (Upper photo by Underwood & Underwood; photo at right by Wide World)



## Steam or Electricity

### Two New Engines Raise This Question

ENGINEERS on both land and sea have been working for many years on electric propulsion. The chief difficulty has been to provide a cheap and efficient source of electric power. Electrically driven battleships and passenger-ships of moderate size, in which the current is generated by steam turbines, have already been built, and the White Star Line in England has recently announced its plans to build a huge electrically driven passenger liner, in which the current will also be supplied by steam. Now railway engineers have produced an oil-electric locomotive, in which an internal-combustion motor is used to generate the electricity. It is claimed that this new locomotive, shown above, will develop the same speed and power as a coal-fired steam-driven engine, at a far lower cost. For a time, at least, the supremacy of the steam locomotive is not menaced. At the right you see engineers at work on a new Pacific steam-driven engine for the Australian railways, the largest yet built on that continent. (Upper photo by Wide World; lower by Underwood & Underwood)



## Launching without Ways

### Direct from Shipyard to Water

HANGING in the air in the picture above is the steel tug Wilavis, swung out over the Willamette River in Oregon by means of a giant crane. Instead of being launched in the usual manner, the Wilavis was simply picked up from the yard in which she was built and lowered gently into the river by the crane. She is 65 feet long and has engines of 250 horsepower, but she was launched as easily as a rowboat. (Photo by P & A)

## Peanuts to Silk

### A New Chemical Triumph



the shells into the basic material from which the artificial silk is later manufactured. (Photo by Underwood & Underwood)

CHEMISTS attached to the waste utilization service of the Department of Agriculture, Washington, have succeeded in producing a good grade of artificial silk from peanut shells. In the photo (left) Dr. S. J. Lynch is shown with samples illustrating the transformation of

## Ticket Machines for Conductors To Sell Tickets and Count Passengers

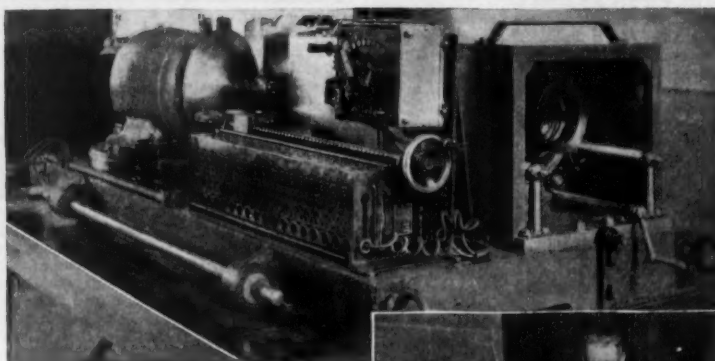
STREET car conductors in Berlin will soon be equipped with a tiny machine that operates much like a cash register, printing a ticket for each passenger, on which the time, date, and direction are indicated. It is pictured at the right. (Photo by Wide World)



## The Piano of the Future

### Two Banks of Keys Double Its Range

IN the picture below, Vincenzo Bellezza, conductor of the Metropolitan Opera House, is shown with a new double-bank piano, invented by Emanuel Moor of Switzerland. The double-tiered keyboard with separate pedals doubles the number of octaves available. Prominent musicians have called this the piano of the future, but how the student who already has his hands full with the single keyboard will look on it, is another matter. (Photo by Wide World)



## Three Strange Cameras

### Two for Science and One for Crime

NOT every camera is like the one you use to take snapshots with. Besides the ordinary kinds everyone knows, there are many unusual ones which are never seen outside the workshop or laboratory. The huge machine above, looking much like a dynamo, is known as Fraser's High Speed Drum Camera. It was designed by Professors R. P. Fraser and W. A. Bone of the Imperial College of Science, England, for use in photographing swiftly moving flames and explosions. Its shutter speed is 1-10,000 of a second, and the whole apparatus weighs 2000 pounds.

Fast as the Fraser camera is, the one on the right is still faster, for it takes a photo in 1-100,000,000 part of a second. It is known as a Cold Cathode Ray Oscillograph, and is used to study and record various electrical phenomena. The California Institute of Technology has recently purchased one from the General Electric Company for use in its



high-tension laboratories. The picture shows Professor Sorensen of the Institute operating the camera.

Almost as strange, although on a smaller scale, is the camera concealed in a telephone, and intended for the detection of criminals, shown at the bottom of the page with its inventor, John E. Seebold of Los Angeles. (Photos at top and right by Wide World; at bottom by International)





# THE NEWS OF THE AIR

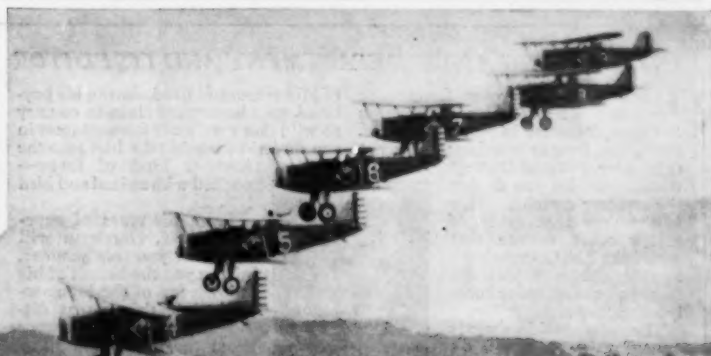


## The Panorama of the Air

### The "Flying Fleet" and the "Flying Colonel" Contribute to the News

COLONEL LINDBERGH, after delivering the first Pan-American air mail in Panama, boarded the giant airplane carrier, the U.S.S. Saratoga. You see him below, sitting in the Saratoga's outrigger, chatting with Lieutenants Stores and Davison. At the right is the Ninth Aero Squadron, whose base is Crissy Field, San Francisco, flying in battle formation over the city of San Francisco during the recent

aerial maneuvers on the west coast. Note the perfect formation in which the ships are being piloted. Each one of them is numbered in the order in which it flies, and each one carries a machine gunner, whom you will see just back of the wing. The intricate maneuvering of the "flying fleet" in the many different formations required in squadron work requires the highest degree of skill and training. (Photos by Wide World)



## Air Fields Afloat

### The Saratoga and Her Brood

THE picture below was taken from the bridge of the U. S. S. Saratoga during the maneuvers off Panama. Her broad landing-deck is covered with Navy planes waiting to take off. (Photos by Wide World)



## "The Best Aviator in 1928"

### Colonel Ferrarin Receives the Title

THE International League of Aviators, meeting in Paris, has awarded the title "The Best Aviator in the World in 1928" to Colonel Arturo Ferrarin, the famous Italian airman. Colonel Ferrarin made three record-breaking flights in 1928. With Major Carlo del Prete, in a Savoia-Marchetti S-64, he established a new

world's air-line distance record of 4,466 miles, flying from Rome to Natal, Brazil. Again with Major del Prete he established the world's closed circuit distance record of 4,763.7 miles. The third exploit of this pair was the establishment of a world's duration record of 58½ hours; also made in a Savoia-Marchetti plane.



1928 was an important year in the progress of aviation. The Graf Zeppelin, flying with passengers and mail from Friedrichshafen, Germany, to Lakehurst, New Jersey, proved the possibility, if not the practicality, of transatlantic air transportation. The Southern Cross, piloted by Captain Charles Kingsford-Smith and Captain C. T. Ulm, with Lieut.-Commander Harry W. Lyon, Jr., as navigator and James Warner as radio operator, flew nearly 8,000 miles, from California to Sydney, Australia, in less than ninety hours. In England, Handley Page invented an automatic slotted wing device, said to prevent stalling and tail spinning. To list all the aeronautical inventions and developments of the year would take many pages. For a complete account consult any reference handbook. (Photo by Wide World)



## Making Colleges Air-Conscious

### This Company Contributes to the Work

IN an effort to bring to the young people of the country the importance of aviation, the Parker Pen Company is sending its own plane, shown above with a group of Georgia Tech students, to colleges throughout the country. Representative groups are taken for flights, and the fundamentals of aerial control and navigation are explained to them by a competent pilot.



## Here Is a Sesqui-Seaplane

### A Model for a Transoceanic Plane

THE model shown above, with its designer, Edward F. Burton, is only five feet in wing spread, but it represents a craft weighing 35 tons, and with a wing spread of 150 feet. Eight 525-horsepower motors will drive it, and 100 passengers will be carried. Like most ships of these proportions, it has so far reached only the model stage. (Photo by International)

## The Largest Navy Seaplane Takes the Air

### This Flying Boat Sets a New Record in Size and Power

ON the cover this month you will see an artist's conception of the work on the new Hudson River Bridge, with the bridge supports towering above a seaplane flying up the river. That seaplane, whose photograph is above, is the XPY-1, the largest in the Navy and probably the largest seaplane in the United States. It is

of monoplane type, with metal hull and two 430-horsepower Pratt & Whitney Wasp motors, and an emplacement for a third motor of the same type. The wing spread is 100 feet, as wide as the deck of the Leviathan, and 32 passengers can be carried in the enormous fuselage. (Photo by International)



## Floodlights for Bolling Field

### A Billion Candlepower for Aviators

TWO new 10,000-watt floodlights, each producing almost half a billion candlepower, have been installed at Bolling Field, Washington, D. C. Each light is so arranged that, by pressing a button at the central control office, the iron shields protecting the lenses are rolled down and the lights themselves turned on. Each light has three incandescent bulbs, consuming 100 amperes at 110 volts. In the picture at right, one of the great lights is shown with Captain Dinger and Lieut. Schwarzwald, who installed them. (Photo by Underwood & Underwood)





# THE OUT-OF-DOORS



## INTRODUCING A NEW DEPARTMENT AND ITS EDITOR

HERE is another new feature for you. The Youth's Companion has been fortunate in persuading E. E. Harriman, famous woodsman, to write this new "Out-of-Doors" department for you during the summer months. This is the first appearance of still another feature that will make The Companion's monthly visits more pleasant, more informing, more keenly interesting.

The country wide, there is no greater authority on camp lore than E. E. Harriman. He grew up in the great hardwood forest belt



of Minnesota and lived, during his boyhood, on a homestead claim in country so wild that a walk of fifteen minutes in any direction would take him into the heaviest kind of forest—packed with animal and bird life.

From his years of experience Mr. Harriman will write for you this summer, giving you the benefit of his knowledge of the innumerable little things that distinguish the veteran camper from the tenderfoot. The Companion is proud, now, to welcome Mr. Harriman as a department editor.

## Your Camping Outfit

### Size Does Not Determine Its Usefulness

IT is an axiom that camping outfits should be reduced to the lowest possible weight. Socrates set us an admirable example in breaking his bowl when he saw a boy drink from his cupped palm. We do not need to go so far as he did, but we should rid our packs of those things that are hampering, pampering elements, not necessary to health or happiness.

At the age of sixteen I had the habit of going camping with a single blanket, a light belt axe, a strong knife, a fishline, salt and matches, and a loaf of bread. A sapling made an excellent rod. Bass were plentiful and easily cooked when caught. I have slept in comfort at such a time, when the air was cold enough at night to coat a stick with ice after it had been thrust into water and taken out wet.

Your outfit starts with your tent—light, waterproofed, only as large as is absolutely needed. Next come a canvas ground cloth to cover the tent floor and to allow a little slack to turn up across the opening—to prevent the entrance of snakes and other vermin; horse-blanket safety pins to fasten the ground cloth to the tent; and your blankets. A shovel with acorn point and short handle is as important as an axe. You need the axe and a pair of grill supports found in any sporting-goods store, made with hinged and pointed legs at each end so that the pair may be set up with speed by pushing the legs into the ground to bring the bearing rods on a level and parallel with each other. Then again you will need metal plates, cups, knives, forks, spoons, salt and pepper shakers, frying-pan, camp kettle, saucepan, coffee pot, butcher knife, milkpan, meat fork, can opener, folding reflector oven, oilcloth square to serve as a table on flat rock or ground, and a whetstone for axe and knives.

A folding canvas pail is necessary to comfort and safety in a camp, for no one wants to run to a spring each time a quart of water is needed, and nobody wants to be limited to a handful of water if fire should start in the shelter. Cooking utensils and construction tools are only needed in convenient working number—one axe, one shovel, and so on.

As to garments, my preference is for woolens, even in hot months. You will very rarely wear a coat on such trips, and you will therefore experience less distress in weather changes than if you wear cotton. The selection of shoes is tremendously important for campers, trappers and hikers. They must fit smoothly, but not too tightly, and carry rubber or leather soles of good thickness, lest the sole of the foot feel each pebble or irregular spot painfully. Thin, soft soles are crippling. Moccasins are fine in snow, but villainous on jagged rocks.

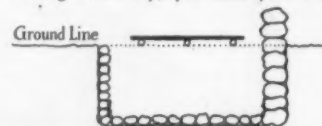
## Fires of All Sorts

### Here Are Valuable Hints

THE sure mark of a poor camper is carelessness about fires. He justifies the scorn of the Indian who said, "White man build big fire, freeze to death, because too hot to go near." Inexperienced campers will burn enough wood to keep twice as many people warm and still suffer from the cold. In this article I propose

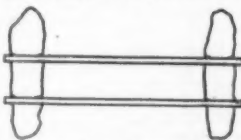
to show by words and by sketches a sensible, effective way of saving food, patience and time, by building a fire properly. Incidentally, I shall teach you the practice of scout and trapper, prospector and hunter of the frontier.

To begin correctly, you need your camp



Here is one of the easiest ways to build a safe and satisfactory campfire. The pit is one foot deep and lined with small stones. The stones are carried up on the right about eight inches to form a windbreak

shovel, for the first requirement is a cleared space with nothing inflammable in it. Scrape the ground clean until your fire space is centered in clean dirt, with from one to two yards between it and any burnable trash. In the center of the circle lay a square of stones in a wall a yard on each face. Now you fill in with smaller stones, and lay a pair of iron rods across the middle, about six inches apart. These furnish the level base on which your kettle, frying-pan, etc., are to rest. If you are troubled by winds, build up a wall on the windward side eight inches higher than the rods. Old gaspides do nicely as rods, and a piece of sheet iron can take the place of the stone wall if you like. A piece of sheet iron on the rods saves pots from sooting and helps the draft between its edge and the wall.



Iron rods or pipes about a yard long supported above the fire by two large stones make an excellent stand for your cooking utensils

Or, if you dig a hole one foot deep in the center of your circle, lay two poles across it, build the fire in the hole and set your pots and kettles on the poles, you save the stone work. For cooking, a fire should be small, concentrated and clear burning. A heating fire must never be hot enough to force people to move back or cover their faces. I once weathered a piercingly cold sandstorm by sitting astride a hole eighteen inches deep in which I fed a tiny fire with cottonwood bark and slivers, while a blanket corner under me made the cottonwood chunk bearable and the opposite corner held the heat in around my body, the other corners being tucked under my legs. The fire was hardly suitable to heat my coffee, but it sufficed.

A campfire was never intended to heat all outdoors. Confine the heat to the limits of the body to be warmed.

The preliminary scraping of the ground is a precaution against forest fires and is of great importance. Never leave a fire burning, never drop a burning match or other things holding a spark. Three years ago a careless boy threw a



To keep your pots and pans clean, always put them down on two sticks, and not on the bare ground

lighted match aside in California, and it landed in dry grass. It cost the state \$68,000 to put out the fire that started there, and the denudation of the mountains caused floods that doubled this cost.

When you have finished with your fire carry water and soak it, or get your shovel and bury it deeply. The careless are public nuisances and enemies of the state.

## Picking Your Camp Site

### Seven Essentials to Watch

NEVER get the idea that you can drop down any old place and be comfortably camped. Under stress one may have to put up with many things, but the sensible boy or man looks for certain essentials in a camp site. What are they?

One highly important requisite is proper drainage. You must pitch your tent on an elevation if possible—one where rain water will run off in all directions. If no hummock offers itself, then dig a trench around the tent, with an outlet deep enough to afford a draining pitch and long enough to take the flood clear away. Be careful to clear the space covered by the tent of all rocks and pebbles, as a sharp-cornered chunk as big as a nut feels as big as a roc's egg after it has been under your two hours. Leave nothing harder than loam or the ordinary leaf mold under your bed. Dig up and pulverize the ground, remove sticks, stones and lumps, and then smooth it carefully.

Care will save you much, so do your work right at first. It is well to consider the nearness of fuel and water to the camp, since both are essential and should be conveniently near in case of storm or sickness. The water must not be of doubtful purity; remember that pond water is usually not safe. Water from a spring rising from a source deep in the earth is best, if it can be found.

Arrange to protect a small pile of wood from rains, so that you can kindle fires quickly when necessary. If you can find a site with a natural windbreak that can be strengthened, you will do far better than if you have no natural framework. Many things may be used as windbreaks: a bank or rank of vines, a line of bushes, or anything upon which you can heap other brush, old debris, bark, etc., to lessen wind force. Often a little grove of saplings may be converted into a protection wall by simply weaving other saplings horizontally among them and piling stuff against these.



A grove of saplings makes a satisfactory windbreak when interwoven with two or three lines of small bushes or young trees, chopped down but not trimmed of their foliage



Baking bread in the open is simple if you know how. The fire should be built against a large rock, and the bread placed under a piece of metal which acts as a reflector. Be sure the fire is not too hot

The great essentials for a camp site are privacy, drainage, fuel, water, shelter, and freedom from mosquitoes and other pests. A part of the privacy requirement covers the matter of petty thievery; hence it is well to locate away from a highway and keep your camp screened from observation.

## Pitching Your Tent

### Four Things to Guard Against

PITCHING a tent properly involves much more than the mere mechanical operation of setting poles, driving stakes and tightening guy ropes. In the first place, the wise tent-owner studies the marks left upon the earth, the fences, trees, shrubbery, rocks and loose debris. He sees the lines of float: tiny particles that cling and show the top line of flood waters, the strung-out lines of dead grass and decayed fibers which show the trend of flow, and the eroded soil which demonstrates the speed and force of that flow. By these he learns what to expect in time of rain or flood. He notes the slant of trees and bushes that tells which way the winds blow most constantly.

These pages in nature's book teach him where to pitch his tent, and which way it should face. If he is wise, he clears a space where he will be above all possible currents of storm water, scrapes the ground, and puts up his tent there. Men and boys of experience never pitch tents in the wilderness by what the old Yankee called "haptoventer," but observe, study and then act with judgment.

Once the tent is up and guyed safely, he proceeds to safety measures. His tent cloth is usually lying out flat for a few inches all round, and he weights this down with poles, stones or dry sand. He should never use damp sand under any circumstances, since it would quickly start to rot the canvas. He makes his weights as nearly continuous as possible, so that there shall be no upward-turning loop to let the air secure a grip that might tear things loose.

This matter attended to, he brings out cheese-cloth, bobbinet or other cloth that will admit the air, but at the same time filter out all flying bugs and other living things. With this open-work cloth he covers the openings so that he may sleep in peace but with good ventilation. This done, he fetches the ground cloth and a pocketful of giant safety pins and proceeds to fasten the edges of the ground cloth to the tent, turning it up ten inches high across the door. This keeps all

manner of creeping things outside. Now he goes outside and makes sure that his drainage system is correct, tests his guy lines and stakes for tightness and solidity, sets a full pail of water, with metal cup, near by in a safe place, and inspects his food supply with regard to safety from roving dogs, cats and mice. In perfect calm he sits down to rest on a good hard rock, his job done. He has guarded against flood and wind, snakes and vermin, and is content.



Camping is possible in every part of the country. No matter where you live, you are never more than a few hours distant from woods or lakes or mountains. The picture above was taken in a camp site in Glacier National Park, Montana





# MISCELLANY



## He Prays as He Runs

### The Companion's Religious Article

CLARENCE DE MAR is one of America's best-known Marathon runners. Six times or more he has been a winner in this grueling sort of athletic contest. This fact is all the more wonderful, for to him running is only an avocation. He is a printer by trade; but there is a boulevard along which he can trot fifteen miles each night to his home. His prescription for running a race is to "hook his brains up to his feet and then pray."

There is a curious thing, though, about Clarence De Mar's prayers. As he runs he does not pray God to help him beat the other fellow. He prays, "O God, help me do my best!" If Clarence has done his best, he takes whatever comes to him, whether it be first place or no place at all. By this sort of prayer Clarence avoids the irrationality of attempting to capture the Almighty as an ally on his side when there may be an equally worthy and pious competitor who may be invoking divine aid for his side.

Many are the spiritual follies perpetrated in the name of prayer. We are enjoined in Scripture to love the Lord with our whole mind. Perhaps there is no point in our service of God where the use of the mind is as profitable and as necessary as when we engage in the sacred office of prayer. Even the familiar phrases of the Lord's Prayer, if you think them through, become eloquent with new meanings.

That the Almighty will alter the steadiness and constancy of His natural law simply because we ask Him in a reverential voice to do so seems hardly reasonable. But natural law is not the whole universe. There are laws spiritual as well as laws natural, and all the majestic might of these unseen forces is at the disposal of the devout heart who surrenders his will to the Infinite Wisdom. More things are wrought by prayer than this world dreams of. If we prayed more wisely, the world would still more wonderfully be the gainer.

At any rate, Clarence De Mar does his best more truly and more successfully when he has a sense that God is working with him and in him. And doubtless the Almighty is as happy helping a runner to achieve as when He helps the religious painter or the church architect to achieve.

## What About Teeth?

### The Companion's Medical Article

MANY times when I have stood beside youthful patients in my chair I have wished that there were some way in which I could make them understand the vital necessity of caring for their teeth while they still have such fine teeth to care for—some way of giving them the benefit of the unhappy experiences that so many older people have. For experience is a stern taskmaster. She teaches us; but usually we learn the lesson too late to help us.

There are few parts of the body which, with proper care, it is more easy to conserve than the teeth; and there are few parts which are more foolishly and needlessly neglected.

Every normal young person wants to excel in bodily power and mental fitness. Those who are really determined must learn one lesson early, and must learn it well. It is this—that the full measure of bodily perfection is impossible without a clean, healthy mouth and sound teeth. These are the three reasons: (1) aching teeth cause unnecessary nerve strains that prevent good work in school or after life; (2) decayed teeth prevent the proper mastication and therefore perfect assimilation of food, with the result that the body is often permanently weakened and becomes more susceptible to disease; (3) inflamed gums and cavities in the teeth leave unprotected places at which germs may enter to produce diseases that it may take years to cure.

One of the secrets of preserving good teeth is diet. On this subject I shall have more to say another time. Another, and just as important, is proper care, in the form of brushing.

Most people have no idea of the proper way to brush their teeth. They saw back and forth from one side to the other, believing that their enthusiasm makes up for their lack of skill. Others brush their teeth up and down. They, too, are wrong, although they are closer to the truth. Here is one of the few proper ways to brush the teeth, and almost no one knows it:

Brush your gums as well as your teeth; brush the

## In the Sky This Month

### Moon Mountains in May

By D. H. and J. F. Chappell

Lick Observatory, University of California

AS this month begins the moon is in its "last quarter"; by the 9th of May a "new moon" will be showing, and by the 23rd (traveling thirteen degrees farther east each night) it will show a full round face. Some interesting changes besides the mere size and shape from crescent to full are taking place while these days pass. During the baby crescent stage there is the pale full face that shows within the rim, a faint milky disc. It is simply the reflected light from the earth—"earth shine." As the moon circles to a place where more of its illuminated side can be seen, a change is evident in the mountain shadows. At first from the slanting rays they appear long to us, and during these young moon days (best from six to ten days old) the finest contrasts are seen. These nights are best to view the moon through a telescope, rather than the full-moon nights.

Just as the shadows of the moon mountains change from phase to phase, and sunrise to sunset, so do some other details; for instance, the strange bright radiating streaks around Tycho, a ring fifty miles in diameter, thousands of feet deep—the brightest point on the moon's face. They do not show well on photographs taken when the sunlight is striking at a small angle, but at the glare of full moon they are brilliant lines.

As strange as the moon's surface looks to us, it is no more weird and deserted-looking than some spots on this earth; there is a sweep in southern Idaho called the "Craters of the Moon," explored by Robert W. Lambert. It is so rough there is said to be no camping space or even room to take a nap. Parts of Hawaii are lunar-like also. William H. Pickering published a book about the similarity, giving pictures of Hawaiian craters that look as if they must have been photographed on the moon itself. As a matter of fact, they are much smaller than those on the moon—earth's largest craters are only seven miles in diameter, while some on the moon measure a hundred miles across and are twice the depth found here. This difference in size has been said to be due to the fact that gravity is only one sixth as great, and volcanic action

would be more potent. However, the chief cause of difference no doubt lies in the state during formation.

Pickering compares the Hawaiian craters rather to the secondary moon craters; that is, those smaller ones formed on the maria, or first flat formations. They are of the engulfment type, the cause being contraction of the crust, rather than explosive thrusting out. All three general classes of craters—the tufa cones of volcanic mud, the cinder cones and the lava craters—are found in Hawaii, but the third mentioned, the lava craters, requiring the least water, are most like those seen on the moon. Lava craters may be cones, pits, rings or bowls. The rings are rarely found on earth and are the most evident of the great moon markings. Cones were thought not to be on the moon; now we know that only their smallness has been hiding them from us; recent fine photographs do show cone craters.

The moon is of course less livable than any of these barren earth spots, for it lacks atmosphere. One most evident proof of the practically total lack of air or moisture is the clean-cut edge, or limb, of the moon, its sudden shadows when occulting stars, or passing into eclipse, and the entirely cloudless surface it presents to us.

Here we may say that the moon's nearness seems in great contrast to other objects in the sky. It comes as near as 221,600 miles, a figure



Mountains and craters on the moon photographed through the 36-inch telescope of the Lick Observatory

that could appear on a speedometer out in the garage. And we look up at it, clearly seeing flat areas (called maria, or seas, but now known to be void of any water) and mountain chains, rings, valleys, and cracks or rills. We have atlases that give all the regions, and, moreover, show them in several lights, or phases. These markings and the albedo, or power to reflect light (a Latin word meaning whiteness), give a varied surface effect in which people have imagined shapes. We often hear of the man in the moon or the woman in the moon holding a baby in her arms; the East Indians see there a rabbit, the Chinese, a monkey pounding rice; and in Persia it has been seen as the earth's reflection, the moon being thought of as a mirror.

The vague forms, however, become most distinct when seen through a small telescope. To look at the moon through even opera or field glasses is like coming on a mountain vista. Its realness up there, round and mysterious in the sky, is impressive. Like the fundamental philosophic awakening when a man cries "I am," there comes at such a moment

of witnessing the moon a deep feeling of actuality; one wishes to cry out, "The moon exists. It is real!" Perhaps this is the greatest meaning that ever comes to us from the moon, although its measures have added much to man's understanding of the other bodies in the sky. Up there at night it floods us with pale light, and seems to cry, "Here am I; what of the sky anyway? Are you remembering the great mysteries?"



THE CHANGING PHASES OF THE MOON

Here are three photographs of the moon, taken at the Lick Observatory. The smaller phases show deep shadows; the full moon shows the streaks and smooth areas unobscured by shadow. The brilliant spot Tycho has bright lines radiating from it, a detail which can be seen at full moon even through ordinary field glasses

upper gums and teeth downward; brush the lower gums and teeth upward.

Brush them this way at least twice a day, and preferably oftener; brushing on arising, after each meal and before going to bed is not excessive. Use a good grade of tooth paste or powder, and a tooth brush that is dry when you start—the bristles of a wet one are too soft, no matter how good the brush, to give you effective results. If this means owning more than one tooth brush, do not hesitate at the additional expense. You will find it well worth the results.

I shall have something further to say next month about the vital necessity for care of the teeth, and the simple ways in which early precautions may save many miseries in later life.

W. VERNON RYDER, D.M.D.

## The Ring in the Egg

### Best Trick of the Month

AN ordinary egg is used in this trick. It may be thoroughly examined before the trick is shown—care being taken that no one breaks the egg.

Then the egg is set in an egg-cup, and the performer taps the top of the egg with a button-hook. After several taps, he breaks the egg, and then inserts the button-hook. A moment later he draws a finger-ring from within the egg,

bringing the ring out on the hook of the buttoner!

How the ring managed to enter the egg is a real problem. Pearls in oysters are explainable—but not rings in eggs.

Yet the method is quite simple. The egg-cup is responsible. A piece of soap is set in the bottom of the cup, and the ring is placed on edge in the soap. The egg-cup stands innocently at one side, waiting to play its important rôle.

The egg is shown, and taken by the performer, who spies the egg-cup, and sets the egg therein, rather forcibly, but not enough to be noticeable. The edge of the ring cuts through the bottom of the shell. When the egg is smashed on top, and the hook is inserted, the production of the ring is an easy matter. The egg, however, should be carried away before anyone can inspect it.

## Proof Positive

### M. de Lamartine Chooses a Seat

ANATOLE FRANCE, the great French writer, was fond of telling, with the laughter for which he was famous, a story of the poet Lamartine. Lamartine, whose full name was Alphonse Marie Louis de Prat de Lamartine,

was an historian and statesman as well as a poet, but he lacked ability where money was concerned. During his greatest political and literary popularity his expenses had been heavy, and eventually, crushed by debt, he was reduced to accept the hospitality of the Emperor Napoleon III. The imperial villa was in the midst of the Bois de Boulogne. One morning the gardener, red with anger, came to protest to the poet's niece, Mlle. de Saint-Point.

"I'm leaving, Mam'zelle; I can't bear that man's malice any longer!"

"What do you mean? M. Lamartine malicious?"

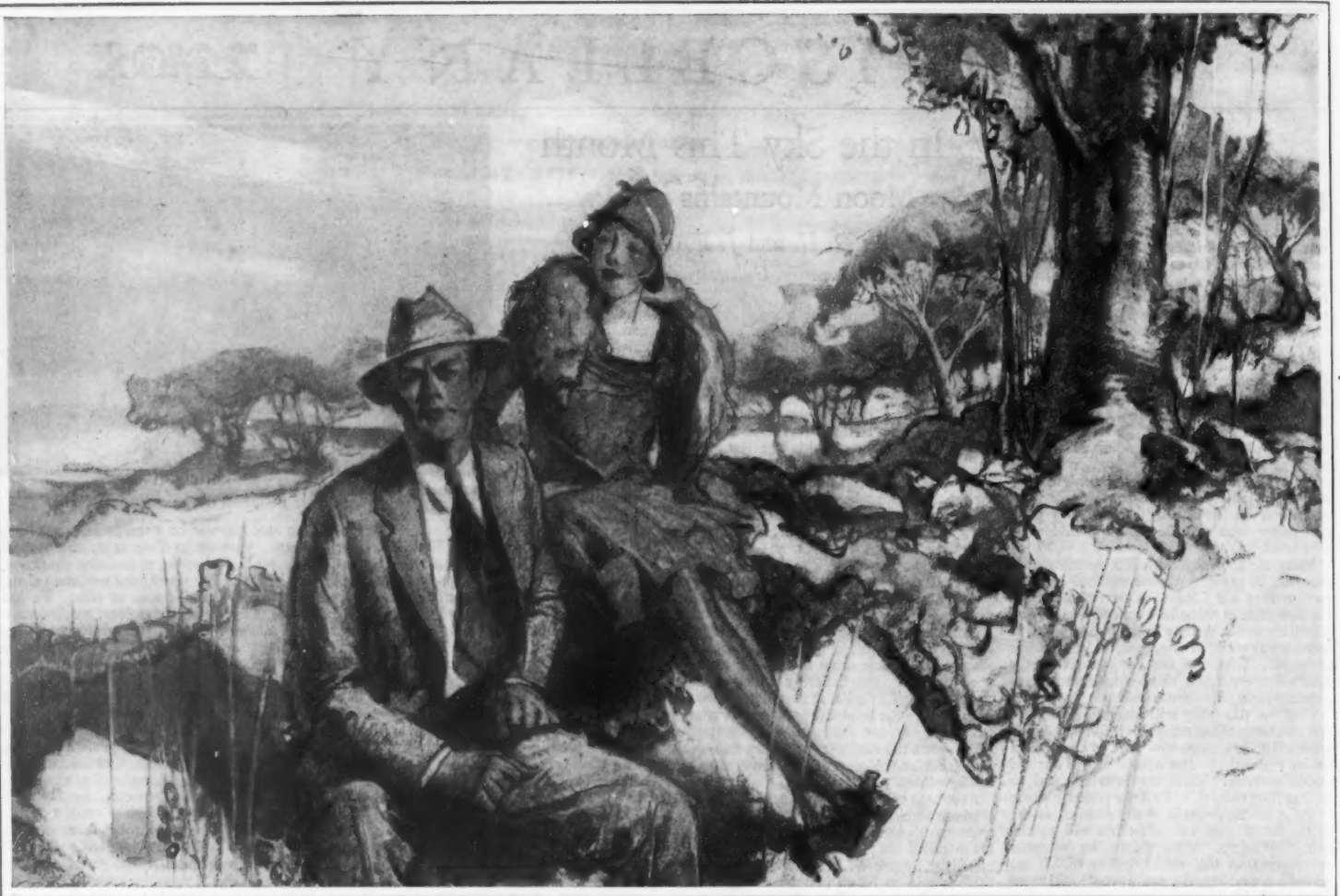
"Yes, he is. I had just finished a basket of roses, a beautiful basket. He came and threw his coat over it and sat down upon it. He broke them all—just like a brute!"

"Choose your words more carefully, young man. M. Lamartine is a very great man—the best of men. His heart is as great as his head. But his brain is so full of a number of things that he may very well have spoiled your roses without knowing it. Probably he did not even see them!"

"I see, Mam'zelle. You want to make out that it was stupidity and not malice. I tell you it was malice and not stupidity!"

"How dare you?"

"I will tell you how I know. My basket stood right beside the fountain. Did he throw his coat over the fountain, and sit down upon that?"



"You're just as high-handed and overbearing as ever, to everybody else," Anna accused him, her blue eyes flashing. "All the other boys think you are as mean and selfish as you can be!"

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"We're all baseball experts, hey?" laughed one writer.

"This kid's already got it high in the head," Mike went on, unheeding. "If you guys give him space and headlines too soon, there'll be no livin' with him. And mebbe yur'll ruin him, besides. All I ask is, will yuh lay off him till I give yuh the word?"

"Don't worry about me," growled Wiley. "I wouldn't mention his name if I could help it, outside of the lineup. What's he gonna play, anyhow, this star of yours?"

"Shortstop, eventually," said Mike.

"Why not now?" chorused the group around him.

"Because I gotta look over these rookie shortstops, and because this kid's gotta do all the little dirty odd jobs and such and work up to his chance at short," Mike explained. "But don't worry, I'll get him ready in time."

"We won't worry," Wiley promised, sarcastically.

"Much obliged," said Mike.

Next morning, Charlie Dawson's course of sprouts began. Mike placed him on first base for the Yannigans, and kept him there through two workouts. He looked like some kind of ballplayer but not like a first baseman. The next day, Mike switched him to third, and his fielding was pitiful. The grounders came at him too sharply and he could not get his hands on them properly. Each afternoon, in the practice game, however, he got a solid two-base hit.

"Take second base, Dawson," Mike ordered, the following morning.

"Gotta use me for my hittin', hey?" grinned Dawson. "Mebbe I can't field, but I sure can lam that old apple."

"Hitters that bloom in the spring? Humph," growled Mike. "Yuh haven't seen any pitchin' yet."

Dawson stayed at second base three days, and by the end of the third day began to take hold of ground balls as if they were baseballs instead of poisonous snakes. He was still awkward, in a graceful sort of way, but he still fought the ball more than he should. And his throwing to first was too hard and fast. As he improved in his play, he became more confident and cocky. He began to swagger, as if landing the second baseman's job on the rookie team was something

to be proud of. Then Mike dropped him from the lineup altogether, for a time, and paid no attention to him for almost a week.

"Y'r keepin' a good man down," protested Dawson. "But yuh can't keep him out."

"Yuh can't get down," Mike retorted. "Reason I can't see yuh is yuh can't stoop over fast enough to get at 'em grounders. Here." And he grabbed a bat. "Go down there by second base. Snap into it."

Taking an old valise full of balls, O'Brien duck-walked out to the plate on his fat legs and began hammering grounders down to the boy. He hit them first to one side and then to the other. He hit them on the bounce, and he hit grass-cutters. He made Dawson come up on the grass and then smashed hard ones at him. He sent him back to the edge of the dirt and then hit teasing slow rollers to make Dawson come in on the run. The boy worked with a will and tried for them all. Most of them he managed to snag, in some manner, but his efforts lacked smoothness. He sweat and grunted, however, and kept trying.

"That's not quite so bad," commented Mike, when he had used up all the balls in the old bag. "G'wan in."

"What can I do this afternoon?" asked Dawson.

"Take a walk, if yuh like," grunted Mike. "I don't want yuh round here."

NEXT morning O'Brien paid no attention whatever to Dawson. When the workout was ended, the boy started to the dressing-room with the others, but Mike called him back. "Go down there by second base again," he ordered. Arming himself with his fungo stick and his valise full of balls, the fat manager once more went through the bag, hitting grounders of all sorts, shapes, sizes and speeds at the perspiring youngster.

"Safternoon?" queried Dawson, panting, when O'Brien let him off. "I was all in, last night and this morning. Back's sore."

"Chase y'rself, then; take a walk, or sumpin'," Mike replied.

And the next day, and the next, the procedure

was the same. But on the day after that Mike stationed Dawson at shortstop for the regular noon workout and made the session twice as hot and twice as long. Dawson did not complain, but even began to taunt the manager for not being able to hit a grounder past him. That ended the torture, for the following day, morning and afternoon, Dawson worked in the Yannigan lineup.

"Second base today, or first?" asked the boy, grinning cockily.

"Neither; take short, and I hope yuh don't fall down and dislocate y'r elbow," Mike retorted. "And say, you, listen. Y'r green as a gourd, so you lean on this Addie Schulz, there on second base, understand? He's been around, and knows his onions, see?"

"But he don't know mine," Charlie replied.

"Won't take him long to see they're rotten," said Mike. "Do what I tell yuh. He knows what goes on around that bag down there, and you play ball with him, understand? Don't go pullin' any dumb stuff of y'r own, what I mean. He's the captain of second base. Can yuh get that through y'r thick knob?"

"Sure, but how'm I gonna gear my speed down to his thinkin'?" asked Dawson.

"G'wan down there," ordered Mike. "Lock y'r chin. It's loose."

All of us writers were watching Dawson that day, but as luck would have it there was little for him to do in the field. In the morning game he hit two singles, and in the afternoon he slapped a line drive to left center for three bases. Nobody paid much attention to his hits, although he advertised them loudly and widely during the evening. That night O'Brien told off the names of the Yannigans assigned to a road trip of a week into one of the other parts of Texas for some exhibition games.

"Hey, what's the big idea?" Dawson demanded, not heeding the presence of several other ballplayers and scribes in the group surrounding O'Brien. "How can I make this old ball club if I have to go lammin' around over Texas with these rookies?"

"I didn't know yuh were in any danger of makin' this club," retorted O'Brien. "And

who's a rookie than you are, anyhow?"

"Just the same, I got three blows today, one for three bags," insisted Dawson, "and this is a swell way to treat a hitter, what I mean."

"Suit y'rself about it," O'Brien snapped. "Go with the Yans or pack up and beat it for home on y'r own pocketbook, if any."

"Of all the fresh guys," laughed Shorty Joyce, the shortstop.

"Tie up y'r tongue," exclaimed Dawson, turning on him. "Y'll need it to panhandle dimes with soon's I beat yuh outa that job of yours."

"Can the chatter," said O'Brien. "Get y'r stuff, Dawson, and beat it to the train with these other guys."

MUTTERING stubbornly to himself, Dawson went to his room and packed his clean shirt. A moment later we saw O'Brien in close confab with George Owens, the veteran catcher, who was acting as manager of the Yannigans for the trip. We did not know what they were discussing, but assumed that Mike was simply giving George some ideas about what he wanted done. In the same way we had to assume whatever we wished to assume regarding the Yannigan trip, because none of us went along with them except the crabbed Joe Wiley. He agreed to send us a collective wire every night, giving us the gist of the Yannigan doings, to be included in our stories of the Regulars' doings.

"And you'll not scoop us by sending out any stories about the future star?" we asked.

"Gave Mike my word," said Joe. "Besides, I don't see any future stars yet."

"Then why go along with the Yans?"

"Well, none of these rookies that are staying with the Regulars look like ballplayers to me," Joe explained. "I don't think any of the Yannigans look good, either. But Mike says he's gonna bring this kid Dawson along, and I'm gonna take a chance on Mike's judgment. Can't see the kid myself, but if Mike says he sees a ballplayer in him I'm gonna have a look anyhow."

Joe Wiley lived up to his word. He sent us a short story each evening from each town the Yans visited, but he never mentioned Dawson's name. If Charlie did anything noteworthy, it

[CONTINUED ON PAGE 270]

## DIAMOND CUT DIAMOND

[CONTINUED FROM PAGE 245]



# Like Caterpillar Treads



The Commander has a heavy self-cleaning sole with sharp-edged cleats, and the upper is made of moleskin—the material used in high grade football suits.



## Over the Top with the Firestone Commander

*The Athletic Shoe with the Remarkable Ground-Biting Grip*

**C**RUNCH, crunch, crunch—the heavy cleats dig into the ground and you're over that hill as easy as a caterpillar tractor. Notice the sole of the Firestone Commander at the left—see those heavy blocks of rubber on the sole and heel—those cleats work like caterpillar treads—they are sharp, sturdy and clean-cut. That's why they take such a grip of the ground—on grass, on the baseball diamond—when you climb over boulders—everywhere that sure footwork helps you to be the winner.

These keen-cut cleats are also self-cleaning. Notice that grooves are open at each end. When the sole bends with each step, dirt is ejected.

If you want the full effects of rubber-cleating—get Firestone Commanders. You'll find the whole shoe up to the same high standards. The upper, for instance, is moleskin—the same material used in high grade football suits. All reinforcements are double-stitched—with a rubber backstay up the back.

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# Firestone

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SHOES



## DIAMOND CUT DIAMOND

(CONTINUED FROM PAGE 268)

was wasted as far as publicity was concerned. However, though Joe did not bother to send us a box score, he did send the score by innings, the batteries and a summary of each game. Twice, scanning the summaries, we saw Dawson's name after the words "home run," once after "triple" and four times after "two-base hits." We also saw it after the word "error" no less than five times. The Yannigans played seven games in seven days. We could tell from such meager scraps as these that Charlie Dawson, the cocky, irrepressible kid, was in these games up to his neck, one way or another. Such scant items, even, tell an experienced baseball man a great deal.

BUT far more eloquent, to me at least, was a little scrap of conversation I heard at the breakfast table the morning after the Yannigans rejoined the main crew of the Royals. They had reached town on a night train, and already, at breakfast, Owens was showing O'Brien the box scores of the games his recruits had played. O'Brien, with a practiced eye, had glanced through all of them, and made no comment. At this point I entered the dining-room and, at O'Brien's nod, sat down near him.

"Dawson?" said Mike, looking at Owens. I followed his gaze.

"Yeah," Owens replied, briefly, and nodded his head significantly.

"H'm, I thought so," said Mike. "Well, Joyce is lookin' better'n what he did last year, but that may not mean anything. He certny couldn't go on lookin' as bad. Kid fight the ball?"

"Yeah, but not as bad as he was," Owens answered.

Nothing more was said, but when we reached the ball park that morning I was not at all surprised to hear O'Brien ordering Dawson to take his place as shortstop with the Regular lineup for fielding practice. In fact, I predicted, to two or three other writers, that it would happen. "And he'll go out there with his head so high in the air he'll probably stumble over a pitcher, or something, without seeing what trips him," one of the boys commented.

"And swagger so wide he'll knock the second and third basemen off the diamond, too," said another.

Both of their predictions were almost literally true. Charlie Dawson was almost unbearably obnoxious, apparently feeling himself the king of all shortstops. He booted one grounder and fumbled two others, but very generously forgave himself these errors, if he thought of them at all. And his throwing was superb.

"Well, it's a good thing this club has got a shortstop at last," he announced, with a confident grin, during the noon recess. All of us had gone back to the hotel for a bite of lunch before the afternoon game carded with an American Association club, Indianapolis, I think it was.

"Yeah, every club oughta have a shortstop," jibed Shorty Joyce. "But then this outfit never played with less'n nine men in the lineup."

"I don't mean a guy that's just in the lineup," proclaimed Charlie. "I mean, a shortstop—a real, honest-to-gosh shortstopper that can peg the leather when he gets it, and—"

"When he gets it is good," Joyce laughed.

"And smack it when he's up there at the plate," Dawson concluded. Most of us laughed with Joyce, remembering Dawson's three misuses of the morning. But he paid no attention to us, being thoroughly satisfied with himself.

"All right, Dawson, we'll just see about that, right away," spoke up Mike O'Brien. "If we've got a shortstop like you describe, it's time we found out about him. You'll play short this afternoon against Indianapolis. There's a good club with some hitters. I'll have my spyglass out, lookin', and I'd like to see a shortstop."

"Y'r on, boss," grinned Dawson.

"Only one thing I ask," O'Brien continued, sarcastically. "That is, I hope y'll get a safe blow at the plate f'r every chance yuh blow in the field."

"Y'r on again, boss," Dawson laughed, confidently.

"Gosh, Mike, the guy can only hit a thousand!" Joyce protested, in mock sympathy for the cheery recruit.

"And that'd be two thousand more'n any other shortstopper around here has been hittin', I'll say," Dawson declared.

"Aw, is 'at so?" demanded Joyce, angrily.

"Shut up, you guys," ordered O'Brien.

CHARLIE DAWSON was the cynosure of all eyes that afternoon. His name was on all the tongues on the players' benches, the grandstand and the press box. Naturally, all the real dyed-in-the-wool fans looked him over closely, for the Royals had been notoriously weak at shortstop for three years. This winter's predictions had all been based on the condition that the Royals find a good shortstop. A team

that runs a close second with virtually no shortstop should be unbeatable in the pennant race and perhaps even in the World Series, if a good shortstopper is found. O'Brien had picked up, as I have said, half a dozen recruits, and had talked trade with all the big league managers owning better than average men at the position. Unlucky in being unable to make a trade, he had watched all the recruits, to no purpose, and had been gladdened only slightly by the improvement in Shorty Joyce's play.

Joyce, I should say, was a popular, likable chap, and all of us correspondents had given him a hand in our papers. We hoped he would make good, not alone for the club's sake, but for his own. And now, with Joyce shouldered out of the lineup at least temporarily by the fresh, aggressive Charlie Dawson, the spotlight quite naturally fell on the boy.

player's job. Only Joyce was upset, as well he might be, and Mike O'Brien held aloof.

"Well, I said it was a good thing this ball club had found a shortstop," Dawson began, cheerfully, after dinner when the boys were loafing in the hotel lobby.

"Shortstop?" sniffed Joyce. "Say, yuh go after that ball like it was tryin' to bite yuh!"

"Say, Shorty, lemme tell yuh—I could make eight errors a day and still—"

"Only made three today," Joyce laughed, interrupting.

"Be a darn sight better shortstop than this club has had for three years that I know of," Dawson concluded, triumphantly.

"If you were half the shortstop I am, you'd be three times as good as you are now, or ever will be," Joyce retorted. "Kickin' that old ball, and tryin' throw it away, and—"



Dawson's playing and hitting were as brilliant as in his first season [PAGE 277]

"Hit one down here, kid," were the first words we heard as the game began. They were Dawson's words, shouted at the Indianapolis lead-off man. As if in response, the hitter smashed a boulder down to the kid, and he took it neatly enough on a good hop, and pegged his man out with a hard, true shot to first. "One for the right side of the ledger, Mike," yelled Dawson. "C'mon, next hitter, try me again."

He kept up this line of chatter throughout the game. His first time up, with a man on second, he crashed a line drive to center for two bases, and again shouted defiance at O'Brien. "One up on yuh, Mike," he yelled, perched on second base.

Presently he let a grounder go through his legs, but, unperturbed, he chased the ball, recovered it and threw to second in time to get his man there. A little later he overthrew first on an easy chance. Following that, he hit another double and, his last time up, drove a sharp single over second base. But in the first half of the ninth he tried to break down a grounder to his right, and kicked the ball almost to third base. Three errors, three hits and, for good measure, four runs driven in, two scored, and one base stolen. He certainly was a busy youngster that afternoon, and the crowd gave him a hand. The fans did not have to live with him. They liked him, because he was doing something, either actually or verbally, all the while. He made a strange contrast with the older, quieter ballplayers going about their work in a businesslike manner. As for the press box, we accepted the kid. He looked crude afield, to be sure, but his faults did not seem to be incurable, and he certainly added life and hitting power to the club. Only Joe Wiley held his thumbs down.

"Too fresh," said Joe. "Too cocky. He'll be in a fight every day. Somebody will kill him. Like as not, some of our own men; or some of them will get crippled tryin' to put him in his place. I'm off him."

Most of the other players paid no attention to him. One new rookie, more or less, means nothing in the workaday of the professional ballplayer, so long as he is not trying for that

"Aw, shut up; little guys should be seen and not heard," scoffed Dawson.

"You're not so blamed big yourself—"

"Big enough to slap you down twice before breakfast, and I'll do it, too, if you don't pipe down," Dawson threatened.

"But not after dinner, hey?" snarled Joyce, angrily.

"Yeh, after dinner, too, for good measure," and as he spoke Dawson stood up from the chair in which he had been sprawled before Joyce and calmly slapped Shorty on the side of the face. He did not appear to be striking hard, but the blow knocked Joyce off balance. He checked himself, recovered, and drove hard at Dawson, swinging both fists. His right drove into the boy's stomach and doubled him up, knocking the breath out of him. They clinched.

"Here, here, you guys, think this a First Ward ball?" demanded O'Brien, puffing up to the scene. He grasped each by a shoulder, and jerked them apart. "Get outa here, Joyce, before I fine yuh fifty. Dawson, get on up to y'r room and go to bed, see? Fightin' like a couple of gutter pups! Beat it, now!"

A manager's word, or at least the word of Mike O'Brien, heavy-handed veteran of a thousand battles, is law. Joyce took himself off, ashamed of himself. But Dawson rather swaggered as he walked toward the stairs.

"Anyhow, I got them three hits, Mike," he said, over his shoulder, with a grin.

"To match the three rotten boots yuh made," Mike retorted. "So we're even. But don't keep that up. Yuh can make more errors in the big time, but the hits will come harder. Beat it!"

Dawson started slowly up the stairway leading out of the lobby. He seemed strangely unabashed.

"Hey, Mike," he yelled, pausing to face back toward the group about O'Brien. "Yuh said we're even, but we're not!"

"What's 'at?" O'Brien demanded.

"Well, we're not even; I'm ahead," Dawson laughed. "Those were only one-base errors; but two of my hits were two-base hits." And with that he hurried on up the steps, and out of sight.

"Fields two-fifty, and hits seven-fifty," muttered O'Brien. "That makes him thousand per cent, hey?"

"Yeah, and add the thousand per cent he talks," growled Joe Wiley, "and that makes two thousand. 'Way too much, if y' ask me.' 'Can we cut loose on the kid yet, Mike?' one of the correspondents asked.

O'Brien shook his head.

But it seemed as if the boy had made good. Rather, I should say he appeared to have begun to make good; for two or three days later the Royal Regulars started north on a string of exhibition games, and the Yannigans went out on a different route with their sideshow. Before we broke camp, O'Brien scattered the six recruit shortstops to the various minors as a sower scatters wheat, and assigned Shorty Joyce to make the trip with the Yannigans. Charlie Dawson traveled north with the Regulars, playing shortstop all the way!

"It's certny great for this ball club," he said at least once each day, "that it has found a real shortstopper to plug up that terrible hole in the left side of the diamond, and put some punch in the battin' order!"

## CHAPTER FOUR

## A Showdown

ALL the way north, stopping at Jackson, Memphis, Nashville, Chattanooga, and several other cities for exhibition games, we correspondents marveled at Mike O'Brien's luck in finding a coming star for his shortstop. Mike was lucky, of course, in seeing the boy catch a football, in the first place, and in running across him at Albert College, in the second place. And it was a lucky thing the boy could play shortstop at all, after having tried hard to break in as a pitcher. Mike deserved credit for his baseball sixth sense in that he saw the boy was a ballplayer despite his shortcomings in the box, and he certainly deserved credit for the patience and skill with which he handled the youngster.

"Credit?" growled Joe Wiley, when this subject came up. "Say, Mike oughta be shot for lettin' the wild-eyed fool live. He'll drive everybody crazy, and ruin the club and the league, both, before he's through."

He even talked this way to O'Brien, but Mike merely shook his head and guessed that he'd handle Dawson, one way or another.

"Can't we tell the folks back home about him, yet?" we asked him, after almost every one of the exhibition games, in nearly all of which he starred.

"I'd wait, if I was you, boys," Mike would say. "He's liable to blow up any day. And if he don't, the piece in the papers will only make him more swell-headed. He's got the makin' of a grr-rand ballplayer in him, and let's don't spoil him."

"Spoil him?" Wiley would grunt. "Listen, he's so rotten spoiled now yuh can't get within twenty feet of him without bein' insulted."

"You dumb-bells from the papers oughta be gettin' a lot of swell items these days," said Dawson to a group of us, shortly before we reached home. "I expect the old home town fans will know all about me, hey? I've certny give yuh plenty to write about."

I quote that statement merely to bear out Joe Wiley's comment. Dawson made many more like it. His talk in those days consisted partly of boasting of his own deeds, predictions of a great future for himself, congratulations to the Royals and their followers for their good fortune in having him on the team, and slighting remarks to everybody else anent their ideas on baseball, whether they were players, writers or fans. Joe Wiley, in short, had the boy properly sized up, and his forecast on Charlie's career came so nearly being borne out—but that is the story I am telling.

You readers who are taking my word for it that you do not really know the true, inside story of Charlie Dawson's career will bear with me, I am sure, when I remind you of Mike O'Brien's statement about the rough diamond. In the rough, diamonds are not worth a great deal, for some cannot be cut properly, others reveal flaws when cut, and some apparently cannot be cut at all. Mike had supreme confidence in his own ability as a diamond cutter in baseball; and he knew, too, that the baseball diamond itself had a softening, weathering and mellowing influence on the player diamonds that use it. The diamond, he knew, cuts diamonds, over a space of time. And he counted confidently on having Charlie Dawson trimmed and polished within the year so that the boy's light might shine brightly for the Royals wherever they appeared. But Mike was sadly jolted out of his confidence, or almost out of it, several times.

"Well, Mike," said the boy, cockily, on the

(CONTINUED ON PAGE 272)



# Your last chance to enter the Eastman \$30,000 Prize Contest

All entries must be in by May 31st

THIS is the third and last month of the Eastman Prize Contest for amateur picture-takers—a contest for you as well as mother and dad. If you haven't entered any snapshots yet, get busy with your Kodak now.

If you have already entered one or more snapshots, don't feel you've submitted enough. The more pictures you send in, the more likely you are to win one of the 1,223 cash awards.

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**AWARD NO. 2—Informal Portraits**—Pictures made at from, say, two to ten feet distance, for the purpose of showing a person's features . . . a first prize of \$500; a second of \$250; a third of \$100; 25 prizes of \$10 each and 75 prizes of \$5 each.

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the best inside views of rooms, corridors, staircases, or other portions of homes or other buildings . . . a first prize of \$500; a second of \$250; a third of \$100; 25 prizes of \$10 each and 75 prizes of \$5 each.

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**THE JUDGES:** *Amlita Galli-Curci, Ethel Barrymore, Howard Chandler Christy, Clare Briggs, Hector Charlesworth, James R. Quirk, Rudolf Eiskemeyer and Kenneth Wilson Williams.*

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Street Address.....

Town and State.....

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Make of Film.....

Enclose this blank with your entries and mail to Prize Contest Office, Eastman Kodak Company, Rochester, N. Y. Do not place your name on either the front or the back of any picture.

## Read these simple conditions

1 Any resident of the United States and its dependencies or any resident of the Dominion of Canada is eligible, excepting individuals and families of individuals engaged, either directly or indirectly, in the manufacture, sale, commercial finishing or professional use of photographic goods. This contest is strictly for the amateur. Contest starts March 1, closes May 31, 1929.

2 Any Kodak, Brownie, Hawk-Eye, or other camera producing negatives not larger than 3 1/4 x 5 1/2 inches (postcard size) and any brand of film, chemicals and papers may be used in making pictures for this contest. A contestant need not own the camera. The finishing, of course, may be done by his dealer.

3 Both ordinary contact prints, and enlargements not to exceed 7 inches in the long dimension, are eligible; but:

4 In the Special Enlargement Competition, prints having a long dimension of not less than 9 inches or more than 17 inches are eligible. Entries in the Enlargement Competition are eligible for Special Enlargement Prizes only.

5 Prints shall be unmounted, but an entry blank shall be enclosed. Use the accompanying blank, obtain others from dealers; copy the form, or write Prize Contest Office, Eastman Kodak Company, Rochester, N. Y.

6 An entrant may submit as many pictures as he pleases and at as many different times as he pleases, provided that the pictures have been made on or after March 1, 1929, and that they reach the Prize Contest Office, Eastman Kodak Company, Rochester, N. Y., by the specified closing date.

7 Entries in the Child Picture Contest to be eligible for the March award shall be received at the Prize Contest Office, Eastman Kodak Company, Rochester, N. Y., by midnight of March 31, 1929; and for the April award by midnight of April 30, 1929. The child in the picture shall not have passed the twelfth birthday.

8 A picture that is to be considered in the Child Picture Contest must be so designated on the back.

In the case of other pictures, however, the entrant need not, unless he wishes to, specify into which of the classifications his pictures should go. The Prize Contest Office reserves the right to change a classification for the benefit of the entrant. If not classified on the back by the entrant, the pictures will go into the classes in which they are most likely to win.

9 Each prize-winning picture, together with the negative, and the rights to the use thereof for advertising, publication, or exhibition in any manner, becomes the property of the Eastman Kodak Company.

10 No prints can be returned, except that entries in the Enlargement Competition will be returned upon request. All mailings are at owner's risk.

Do not send negatives until they are requested.

11 The decision of the judges will be final. In the event of a tie, the advertised award will be paid to each of the tying contestants.

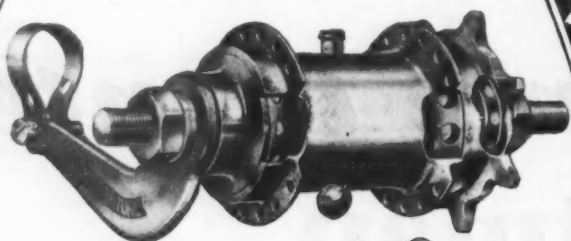
12 All pictures will be judged 50% on subject interest; 25% on composition and arrangement; 25% on photographic excellence (correctness of exposure, etc.).

13 Mail pictures to Prize Contest Office, Eastman Kodak Company, Rochester, N. Y.

14 An entrant may receive only one prize. In case the judges select any entrant for more than one award, he will receive the largest thereof. If he wins, for example, a \$100 state prize in the Child Picture Contest, and if either the same print or another of his prints in the General Contest wins an award larger than \$100, he will receive the larger amount. The Eastman Kodak Company will consider the purchase of desirable pictures even though not prize winners.

15 Winners of the state prizes in the Child Picture Contest for March will be notified as soon as possible after March 31, and for the April Contest as soon as possible after April 30, 1929; winners in the Special Enlargement Competition and all other classifications will be notified as soon as possible after May 31, 1929.

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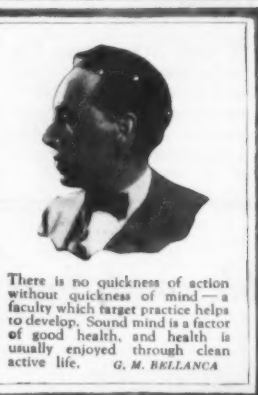
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## DIAMOND CUT DIAMOND

[CONTINUED FROM PAGE 270]

Pullman rolling into the Royals' home city two days before the season opened, "I guess yuh can get rid of that little Shorty Joyce, now. Won't need him around."

"Fraid he'll beat yuh outa that job, if he sticks around, hey?" asked Mike.

"Who, me? Not a chance," Dawson laughed. "I'm so much better'n he is, he'll just be in the way. What I meant was, I'm always in shape. I never get hurt, nor nothin'—play all a time, see? No use keepin' him on the payroll."

"Why, you fresh onion," horns in Joe Wiley, who's been writin' the Royal doings for twenty years and is a privileged character, "you don't even know whether y'll get to start at short in the opening game, yet."

"Bet yuh three to one I do," snapped Dawson. "I've got the groceries Mike ordered, and I'm gonna deliver 'em. How d'yuh like that, Whiskers?"

Dawson did start the first game at shortstop, as he predicted himself, and for a week the big city was pop-eyed watching him. He hit like a cold-blooded fiend, fielded fairly well, threw like a gatling gun, and ran bases with all the nerve and abandon in the world. The sport pages, with Mike telling us we could shoot, now, if we'd be careful, boiled over with accounts of his doings, his wise-cracks, and his pictures. He was running wild, like a colt on the range. Everybody talked about him, and crowds turned out to see him, despite the raw early spring weather.

BUT all the fuss over him did not seem to affect him—for the simple reason that he was already as puffed up as a boy can be without absolutely bursting. An example: In the fourth game, which the Royals sewed up early, he stole second base, third and home in succession. It was nice work, of course, but the opposition had lost interest in the ball game due to a nine-run lead.

"Good goin', kid," said Mike O'Brien, as the boy swaggered to the bench. Mike, I may say was always very sparing in his compliments to his men.

"Oh, that's nothin', Mike," Dawson replied, with a grin. "I'll do that twice in one game before the season's over."

O'Brien merely scowled. Before the week was out, despite the fact that the Royals had started out by winning most of their games, his scowl deepened and intensified. The victories meant little, because the first two teams we played were weak, second-division clubs. And Dawson's individual performance cheered him little. He ignored Charlie's crisp, sharp hitting of line drives, and the boy's bullet-like throwing, as well. He even quit worrying over the boy's handling of ground balls, which improved slowly, but steadily, and paid no more attention to the kid's skill in going out into the outfield for popflies the gardeners could not reach coming in. For several days he sat on the bench throughout the games and stared dully at second base. Things were not going right.

Perhaps I should have said something sooner about the Royal infield. Joe (Third) Rale, the first baseman, was a medium-sized chap who fielded like a demon, being especially strong in handling thrown balls. He was a light hitter but a clever base-runner, and he headed the batting order. Ollie McCann, at third, though only a fair fielder, threw well and hit the ball hard. He batted in the clean-up position. Both were far above the average in worth to the team. But the anchor, or steadying influence, of the infield, was Len Drew, a fiery, brilliant Irishman, playing second base. For five years Drew had been the star of the infield, with flashy exploits of all kinds afield. All his game was good, and the best part of it was his handling of the ball on plays at the bag. They still rate him the best man in the game at starting double plays, or at pivoting in the middle of them. He could take almost any kind of a toss from a shortstop or third baseman and get it to first in time for a double putout. He excelled, too, in taking throws to retire base-stealers. In short, he had few peers at playing the bag.

I should not have said, as I did, that he was the steadying influence of the infield. In the first place, Rale and McCann needed nothing to steady them, for they always played the game with their feet on the ground and their heads up. And in second place Drew steadied nobody by his personality, or his voice. He was simply so good around the bag that the rest of the club felt plenty of confidence simply in knowing he was in the game. Personally he was an irascible, hot-tempered chap who blew up as often as any other, and had as many arguments with the umpires as any other two of the Royals.

Through four seasons in which Mike O'Brien

had experimented with half a dozen different shortstops, Drew had held up his end and played ball with all the recruits as best he could. And that is the important thing about second base. The second baseman and the shortstop must be the twins of baseball. They must work together like a first finger and a thumb. They are the pepper and salt, the ham and eggs, the Damon and Pythias of baseball. They must be tuned to each other as the strings of a violin are tuned, for harmony is the first essential at second base. Through experiments with long and short shortstops, fat and thin ones, Irish, Dutch and Hungarian shortstops, Drew had held up his end, as I said, and cooperated as best he could. If his little playmate was slow, Drew slowed down his game to team with him. If he was fast, Drew speeded up.

But something was wrong around second base, and Mike O'Brien was worried. Dawson looked and acted like a star. Drew in his own right also played brilliant ball. But between them, in plays at or on the bag, something was wrong. Double plays began to miss fire. Force-outs at second were not so sure as they should be. Dawson and Drew were not in tune. And Mike O'Brien scowled and worried for days.

IN about the tenth game of the season, I think it was, Boston had a man on first. The hitter drove a grounder to Dawson. Double play? No. Charlie got the ball to Drew in time to get the "big one," but Drew could not throw to first in time to make it two. O'Brien said nothing. He knew that if he jumped Dawson the boy would claim he had the ball in Drew's hands with time to spare. He knew that if he asked Drew the second baseman would blame Dawson for getting the ball to him late and in poor position to throw. So Mike said nothing, at the moment, regarding the play. But when the team came in to the bench he spoke to Dawson.

"Charlie," he said, quietly, "it takes two men to play second base."

"Huh? What's 'at?" asked Dawson, surprised, but with a slightly guilty look.

"One man cannot play both jobs," Mike explained.

"Well, I could make a better stab at them by myself than I can with some pieces of cheese yuh got around here," Dawson retorted.

"Sit down; Joyce will finish for yuh," said Mike. "Joyce, warm up."

Dawson, stunned momentarily, stayed on the bench the remainder of the game. But before the game ended he was as cocky as ever, for Joyce, while making no mistakes in the field, failed twice at bat when a hit would have meant a run, and the Royals lost the game.

"Yuh gotta have a hitter in there, Mike," he proclaimed.

"Yeah?" queried Mike. "Even if he won't play half of a two-man job? Wants to play all or none, by his own little self? Oh, no."

"Gimme a guy 'at can play the other half—" began Dawson.

"Shut up," Mike snapped. "Drew's as good a second sacker as there is in the big time. Better than most. If yuh can't play ball with him, out yuh go, see?"

"Aw, say—"  
"That's flat."

DAWSON subsided. But next day Mike put him back to work at shortstop and watched him carefully in all the plays around second base. Confident that O'Brien had to use him, Dawson became almost openly defiant of Drew. He pulled Drew out of throwing position twice with tosses he could have thrown properly, and once loafed on his end of a play at second so long that Drew, trying to cover the bag when it was not his play to take the throw, almost fell down and looked very awkward. Mike merely scowled. That night he had a long talk with Drew, whom he trusted. Nobody knows what they said, because they did not tell. Next day Mike tried Joyce at second base, with Drew on the bench. Dawson swaggered all over the field, tried to play second base and shortstop as well, and ignored Joyce almost completely. He would have been kicked off any self-respecting manager's club for the way he carried on, but he hit doubles and singles and stole a base for good measure.

A showdown came the very next afternoon, at the end of the last game in the first stand at home. Dawson had not done well at short or at bat, and Drew, back on second base again, had played brilliantly, although play between them at the bag was amateurish. Luckily, no damage had been done, however. The gang had gone back to the clubhouse.

"Well, well, here's a hot line," laughed Dawson loudly. "Sport writer in this alter-

[CONTINUED ON PAGE 274]





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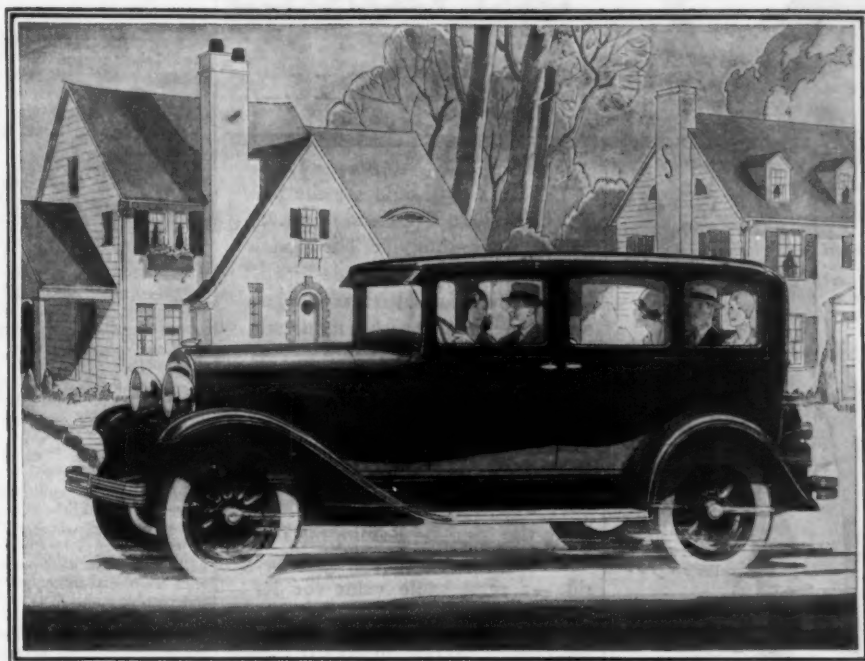
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## DIAMOND CUT DIAMOND

[CONTINUED FROM PAGE 272]

noon paper has a big piece about Charlie Dawson, the kid shortstop. Says he has every chance to make good. Says maybe he'll stick in the lineup. Says he may even be a coming star! Can yuh feature that—after all I've done?"

"What does he mean, star?" asked one of the boys.

"What does he mean, coming?" echoed Dawson. "Say, I've been here with both feet and my bat, but look, here's a laugh—it says much credit for my favorable showing to date has been due to teaming up with the brilliant Len Drew at second base. Drew has had much to do with the youngster's development—"

"I deny that!" yelled Drew, sore as a goat all through. "Y'r a long way from developed, what I mean, and even I couldn't help yuh!"

"Why, yuh pore cheese, all yuh can d is ripen and rotten by y'rself," Dawson retorted, dropping the paper. "As for helping anybody, even a fish that needed help, which I certny don't from any of you bums, y'r out, see? Wet! A washout!"

And before anybody could stop them the pair were fighting like savages. Friends of Drew, including practically all the players, stood about to see that he got help if he needed it. Nobody seemed to care whether Dawson was hurt. Only the timely intervention of Mike O'Brien, who came in late after having stopped to argue with the official scorer, prevented a finish fight and possible bodily harm to one or both of the athletes.

That night I did not go with the club on its out-of-town trip, so that the first I knew of what had happened was a story I read in Joe Wiley's paper, written by Joe himself. The old-timer bitterly denounced Mike and the Royal management for trading Len Drew, a proven star at second base, to Chicago for a second-string catcher. He asked if Mike had lost his mind. He wished to know whether the Royals really wanted to win the pennant. He decried the infield plans described by O'Brien. "Dawson to remain at shortstop, and Addie Schulz to play second base!" A raw, untried youngster, said Joe Wiley, and a utility man of three years' subbing experience, instead of a real shortstop and Len Drew, the keystone of the club's defense for five seasons!

There was quite a furor, of course, and Mike was roundly criticised in all quarters. I think I was one of the few baseball writers that did not denounce O'Brien for mental weakness. I thought I saw what was in Mike's mind—two positive, aggressive, fighting men at second base, each ambitious to star. Each jealous of the other. Each resentful of the other's presence. Why try to hitch them together when they will not pull together?

Mike, much as he hated to lose Drew, had picked Dawson, the overbearing, swell-headed kid, as the player of greater value. And the storm subsided, presently, for Charlie electrified the fans and the sport writers of the other three cities in our end of the league by his brilliant playing and hard hitting. And the day before the team returned home, he started two double plays, via Addie Schulz, and hit three three-baggers, all with men on bases, to win the game almost single-handed.

"Boy, it begins to look like they appreciate a ballplayer in these parts," he said, cockily, to Addie Schulz, as the home crowd cheered him when the first game started.

I know this is what he said, because Addie Schulz told me so. Addie, in fact, has given me much of the information on which I base this real story of Charlie Dawson, for Addie—But that brings us around to this sturdy, quiet, placid and agreeable German boy who has played so much rugged, steady second base to Dawson's flashing shortstop.

### CHAPTER V

#### "Meet My Helper"

ROUGH diamond? Hunh, rough neck," snorted Joe Wiley, all through that first season, whenever Charlie Dawson's name was mentioned. "Listen; maybe he can hit, and field a little. I'll admit he's got an arm, and he's not so bad on the bases. But listen, all the players hate his shadow. The umps can't stand him; none of the writers like him, and even old Mike himself gets sick at his stomach when he thinks of anything about Dawson but his ballplayin'. Nobody likes him, but the crowds and this dumb Addie Schulz!"

"And the game is played for the crowds," I suggested mildly. I had no intention of defending Dawson, for I disliked him as heartily as any of the others did, possibly excepting Joe Wiley, the old crab.

"And Schulz made Charlie Dawson," said

another sport writer. We were sitting about in the press box, near the end of the season, talking about the annual award that is made each fall for the most valuable player in the league.

"Wait a minute," protested Joe Wiley, sourly. "This kid came into the club, and the first thing he did was to run out Shorty Joyce, a good, decent guy, even if not a world-beater as a ballplayer. Having shouldered him out, he next gets out his axe for Len Drew, as good a second baseman as there is in this or any other league, and—"

"I don't think the kid deliberately tried to get Drew," I objected.

"Well, maybe not, but he certny made life miserable for Len, and ruined all chances of any second-base play," Wiley argued. "He wouldn't team with Drew at all, and Mike had to let Len go. And now this Schulz fills in, and nobody ever would know we've got a second baseman at all."

That statement just about describes Addie Schulz. He was a stoutly built chap, blond and blue-eyed, with a serious expression on his face. He never talked much, and he was silent on the field. He did not compliment Dawson on his playing, nor criticise him, either. Instead, he minded his own business and held up his own end.

It has never been suggested that Dawson wanted Schulz on second base. It is not recorded that Charlie ever gave the willing worker a thought. But when Schulz went into the lineup, Dawson began to shine more brightly than ever. He dominated the territory around second base, made all the scintillating plays, did all the sharp throwing, and in short did all the fancy stunts that were to be done. He did them exceedingly well and left the plain, routine mending and darning to Addie Schulz. Both were happy over an arrangement that simply happened without any planning, and neither ever gave the other credit, so far as is known, for his own success.

NO other second baseman in captivity could have played alongside the high-strung, domineering Dawson. But Schulz thrived, in his quiet way. He laughed at some of Dawson's teasing and ignored Charlie's dirtier cracks in his direction. The two roomed together when the club was on the road and indeed were inseparable at all times.

"Meet my helper," was Dawson's favorite way of introducing Schulz. Addie would only grin sheepishly.

"Yeah, that's me," he would admit.

"He looks after all the little things I can't find time to do," Dawson added, invariably. "Nice boy, too, and I'm gonna do sumpin for him, some day."

But that latter statement was ridiculous, for Dawson never did anything for anybody but Charlie Dawson. He was thoroughly selfish.

"How can you stand this guy?" Joe Wiley asked Addie one time.

"Oh, well, he is vot he is," Addie explained, slowly. "And I'm vot I am."

"But he's so overbearing, so bullying, and—"


"Oh, now, if you had a little puppy dog, and he was playful and rough, and sometimes he should bite you," said Addie, "you would still remember he was shunt a little puppy, wouldn't you? And you'd wait while he grow older?"

Joe gave up in disgust and fell to wondering about Addie instead of Dawson. He even thought that the boy from Milwaukee was entitled to the award as the most valuable player to his club, because he was responsible for Dawson's success, in a way, and therefore for the club's success. But the sport writers would not hear to that and voted the award to Dawson. But that is getting ahead of the story again. That happened after the World Series, which followed something else I must tell about. Please do not ask me how I know about this thing, for, while I am sure of it, I cannot tell you how I know.

Have I said that Charlie Dawson was a handsome young rascal—attractive in a physical way? He was. He stood almost six feet tall, had broad shoulders, black hair and sparkling black eyes, and white teeth that lighted up his even features when he smiled. His appearance, plus the stories of his prowess in all the papers and on all the tongues of all the fans, made him popular among the girls who did not know him.

Toward the end of the summer he met Addie Schulz's sister, Anna, who lived in the city with Addie. She was as pretty, demure and lovely a little person as you could wish to see or know. She had those big baby-blue eyes, a

[CONTINUED ON PAGE 276]



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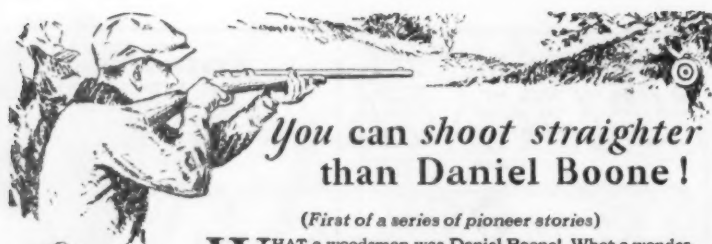
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(First of a series of pioneer stories)

**W**HAT a woodsman was Daniel Boone! What a wonderful shot—as those old timers had to be! From boyhood he was skilled in the use of a rifle. He was deadly when a kill meant meat—always cool when lives were at stake. Often the danger came from Indians on the warpath; sometimes from savage beasts.

In Hartley's biography of Boone we read: "He was scarcely able to carry a gun when he was shooting all the squirrels, raccoons, and even wild cats he could find. Other lads in the neighborhood were soon taught by him the use of the rifle. On one occasion, they all started out for a hunt, and were returning homeward, when suddenly a wild cry was heard in the woods. The boys screamed out, 'A panther! A panther!' and ran off as fast as they could. Boone stood firmly, looking around for the animal. It was a panther indeed. His eyes lighted upon him just in the act of springing toward him; in an instant he leveled his rifle and shot him through the heart."

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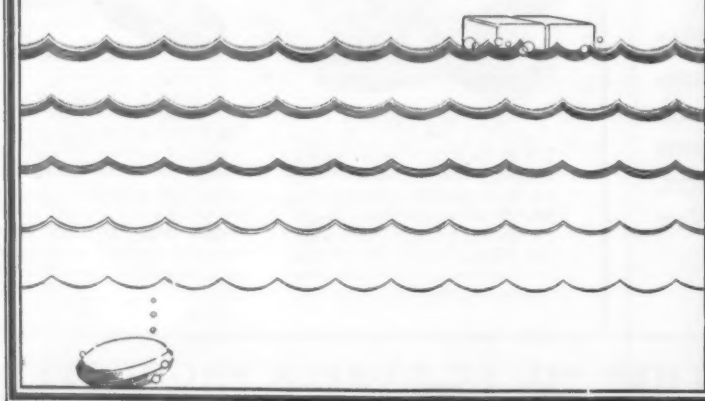
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## DIAMOND CUT DIAMOND

[CONTINUED FROM PAGE 274]

beautiful white skin and radiant reddish blond hair, and she was charming.

"Yeah, Addie's muh helper," proclaimed Charlie, with a wave of his hand. The three were going out to dinner together after a game. "But I didn't know he had such a knockout for a sister. Or any sister, for that matter. How come I didn't know 'bout yuh?"

"There are many things you do not know about," chaffed Anna, laughing.

"Oh, not so many," protested Charlie.

"And some, probably, you never will learn," she added.

"Say, d'yuh think I'm dumb?" Charlie demanded.

**A**ND from that moment, Charlie was crazy about Anna Schulz. She was not at all like the self-effacing Addie. If Charlie expected to find more of Addie's quiet, agreeable nature, he was disappointed. Anna made no effort to please him or encourage him in any way. She teased him, razed him, jolted him hard with criticism at times, and in general kept him on edge. No other girl, of the dozens he had met since he became famous as a big league shortstop, had ever talked to him as she did. He resented her manner, but came back always for more. Her aloofness piqued him. Finally, he fell head over heels in love with her. This must have been late in September.

"Anna, you need somebody to look out for you," he told her one evening, when they were on their way home from a movie. "What are you going to do?"

"Art work, as soon as I finish my course," she replied.

"But that won't get you anywhere," he argued. "You can't live on what you'll make, and how do you get by, now?"

"Addie helps me," she said, simply.

"By George, I'd like to take the job off Addie's hands, Anna," exclaimed the boy. "I'm sure crazy about you, and you know it. I'd like to look after you, and you could do all the art work you want to—"

Anna burst out laughing, to interrupt him sharply.

"What's a matter with 'at?' he demanded. "Plenty girls—"

"The idea of you doing anything for anybody, Charlie Dawson, is too silly for words," she explained, soberly now. "I'll make you mad, but I'm going to tell you something for your own good. You don't do anything for anybody. Not even for Addie, who's done so much for you. Nor for yourself, even!"

"Where'd yuh get that stuff?" he asked, unable to believe such a queer statement. "I'm makin' good. I'm drawing down big money, and I'll get more—"

"Are you saving a dime?" she asked. "Are you getting ready to make your living some other way when you're through playing ball?"

Dazed, Charlie Dawson could not answer either question. They walked along in silence for a time.

"Charlie, I knew I'd make you mad, but I can't help it," she said, presently. "I like you too well not to say this ugly thing to you. And Addie likes you, too, though why he does I can't understand. You treat him like a dog, or a doormat fit only to wipe your feet on. Anybody else would knock your head off, instead of playing with you down there around second base so well!"

"But, gee whizz, Anna, what's all this got to do with you and me?" Charlie asked, when he recovered from the effect of her words.

"You were asking me something pretty important to both of us," said Anna, quietly. "And I was trying to tell you why there is no chance, unless—"

"Unless what, Anna?" he asked eagerly.

"Unless you get to be more like Addie Schulz and less like Charlie Dawson," she replied, in a firm tone. "And, Charlie, remember, I'm not trying to make you mad. I only want you to see—"

But they had reached the door of the apartment in which Addie and Anna kept rooms, and Charlie, suddenly angry, left her abruptly at the door. He went to bed, and thought of the dumb Addie, hey? Good night!

What has all this to do with baseball, and the game played by the debonair Charlie Dawson? Only this—that Dawson worked himself into a jealous frenzy against poor Addie Schulz, who knew nothing of the affair, played ball like a crazy man to and through the Series, and almost single-handed won the championship for the Royals. Single-handed? Well, not that either. The Royals had good pitching, and strong defense. Charlie starred with brilliant plays afield, and hit like a fiend. He scored more runs than any other

player in the Series, and stole more bases. But the others helped. Addie, for example, played his usual perfect game at second base and hit steadily. In fact, he batted Charlie in with most of the runs Dawson made.

And Dawson did receive the sport writers' award as the most valuable player to his club, over the protest of Joe Wiley and a few others. The public hailed him as the greatest player that had broken into the game in years, and he should have been happy.

But he was not. He continued as cocky, confident and overbearing as ever. He went on treating Addie Schulz, the patient friend, like dirt under his feet, or worse, and added a touch of surliness to his other disagreeable characteristics. Anna's words still burned him up, and he was at a loss what to do.

Before he went back to his home for the winter, to be hailed as hero among his boyhood friends, Charlie Dawson called me up and asked me to meet him in a sporting-goods store where ballplayers spent idle hours. I went down to see him and realized he had something serious on his mind. I could not imagine why he wanted to talk to me, because I had never gone out of my way to be pleasant or cordial to him. On the other hand, I had never panned or kidded him in any of my stories, and he may have thought that I appreciated him more than the others did. He wore a very sober expression as he greeted me.

"Just wanted to see yuh a minute," he explained, awkwardly. "I'm goin' home for the winter, and I been kinda upset. You know all this racket better than I do, and I wanted to get y'r slant, see?"

"Anything I can do for you, Charlie?" I asked. Just then old Joe Wiley came in and, seeing us together, joined us quietly.

Well, what I want ask is, what's the use?" Dawson asked. "Here I go and play ball up to the handle, hit, and field, and run them old bases like nobody's business—and what does it get me?"

"How do you mean?" I asked, although I knew perfectly well what was in his mind. And I rejoiced, inwardly, that he seemed to have started thinking at last.

"Well, who cares a hang whether I come back or not? Who wants to say hello, outside of a bunch of nut fans?" he asked. This was a particularly awkward spot for me, for I have never liked to probe another's soul for the hurt spots. But old Joe Wiley stepped into the breach.

"Lemme tell yuh something, kid," he said, gruffly. "Y'r a grand ballplayer, but y'r a terrible piece of work. I don't like y'r ways, see? But I hand it to yuh, y'r a ballplayer. Now then, I'll tell yuh. Last spring a bunch of us were talking, and old Mike says y'r a diamond in the rough. I said yes, but rough diamonds sell by the bushel. And old Mike says wait, he'll see that y'r cut, and polished, and everything, and then—"

"Well, I made good, didn't I? I hit, and fielded, and run them bases? I can throw like anybody," Dawson insisted. "I made good." "Sure," said Joe, and I was certainly glad he had taken the disagreeable task off my hands. "As a diamond, I'd say y'r cut, anyhow. And yuh shine, too. Not polished enough, yet, maybe. But listen, kid, what makes a diamond worth anything?"

"Hunh? What's 'at?" asked Charlie.

"Well, listen," Joe explained. "Diamonds are valuable because people like 'em, see? If people didn't like 'em, diamonds wouldn't be worth the trouble to hunt 'em up, and cut 'em, and polish 'em, see? If nobody wanted to have a diamond around, diamonds wouldn't be worth a dime. So if it wants to be valuable, a diamond has got to make people like it, and—"

"Aw, for the love of Mike," growled Charlie Dawson. And without saying another word he swung about and hurried out of the store, leaving me and old Joe to stare after him. I looked at Joe, and he looked at me and grinned. Clearly, the boy was angry through and through.

"Maybe the boy'll begin to make good, now, one of these days," said Joe. "I'm beginnin' to have hopes for him, myself. If he'll just think—"

Anna's words, together with those of old Joe Wiley, the words of one who liked him and one who did not, quite certainly gave Charlie Dawson plenty of food for a hard winter of thinking!

### CHAPTER VI

#### The Unlucky Break

**Y**OU can get 'er, Addie," we heard a big voice yelling. It was in the first home game of the next season, and the voice belonged to Charlie Dawson. I rubbed my eyes



and looked at the play more closely. Addie Schulz was chasing a popfly back of second base. It would have been an easier chance for Dawson as it came down, but that was because a hard wind was carrying the ball away from Schulz.

"Attaboy, Addie," came Charlie's shout, as the German finally snagged the ball after a hard sprint.

I had never heard encouragement or compliment from Dawson for his second-base partner before, and I could not understand it. During the winter I had heard nothing from the boy directly, and since I had not gone on the southern training trip with the Royals this year, I did not know what happened.

Of course I knew, as every other fan knew, that Charlie had made a grand bargain for himself when, during the winter, he signed a new contract with the Royals. He stipulated a salary up among the highest paid in baseball and demanded a longer term of years than baseball agreements usually run.

His handling of this affair, however, merely convinced me that he was still the highest-handed, most arrogant youngster I had ever seen in the majors. The only information I had about his behavior during the off-season came from Addie Schulz, who stayed in the city during the winter to be with Anna. He told me that Charlie was studying something or other, taking some correspondence courses offered by Albert College, where he had played ball under an assumed name. Could the boy be thinking, after all?

We changed our system on the press sport pages that year. Instead of having one writer stay with each of the two major league clubs all the time, we kept one man at home and the other on the road, alternating with the two clubs. I was elected to stay at home, and therefore saw only half the games played by the Royals. But a sport writer seeing a club in half its games gets to know pretty well what goes on in the ranks of the team.

Startled by Dawson's support of Schulz, which was in such strange contrast with his previous behavior toward the patient, plodding second baseman, I watched Dawson closely. For the first time, he seemed to be treating Schulz like a human being instead of a mangy dog. More, he cooperated with him around second base, giving Schulz support at all times instead of demanding that Addie play to him, or get out of his way to let him make all the putouts and assists he could make. Mike O'Brien was happy as two clams.

"We'll be fifty per cent stronger around second this year," he told me. "And not because Dawson is any better or more confident than last season. It's because he's playin' ball with Schulz now, instead of elbowin' him out the way all the time."

But if I thought Charlie's general disposition was any better, I made a sad mistake. He still rode over the other players roughshod, razed and nagged them all the time, and bragged and boasted of his own doings most tiresomely. None of the players, except Schulz, liked him at all, although none of them fought with him or opposed him openly. He was too strong as a player, and too ready with his fists, for that. They tolerated him, suppressed their dislikes, and hoped he would continue to star, for the sake of the team, the pennant and another World Series money split. Dawson's playing and hitting were as brilliant as in his first season, and in addition, smoother. He looked, indeed, to be the great star, the diamond, that Mike O'Brien had predicted all along. The club took the lead at the start of the season, and things looked bright indeed.

**B**UT if Mike was pleased, and all the fans happy, Anna Schulz was no more satisfied than the other members of the club.

"But, Anna," Charlie protested to her, "I've turned over a new leaf. I'm studying correspondence courses in the college, and I'm gettin' along fine with Addie. That old boy is a ballplayer, don't think he's not, and we get along fine."

"What are you studying, and what are you studying for?" Anna demanded. "And did you think that I cared how you act, just on Addie's account? Addie will take care of himself against you, or anybody else, and I'm not worried about him. Are you just being nice to him on my account?"

Charlie could only stammer in reply to this question, for he did not like to admit he was merely trying to ingratiate himself with her.

"You're just as high-handed and overbearing as ever, to everybody else," she accused him, her blue eyes flashing. "All the other boys think you are as mean and selfish as you can be. Not one of them will say a good word for you, except as a ballplayer!"

Charlie had no answer to this, and changed the subject as soon as he could. And from that

time on he did try clumsily to get along better with his mates. He had no luck. It simply was not in him, at the time, to make himself agreeable to the other men battling with him for the same cause, against the opponents. But he did redouble his efforts to make amends to Addie Schulz, and the pair became, within two months, by far the best and smoothest-working second-base combination in the big leagues.

Addie, encouraged and emboldened, played better ball than he had ever shown before. And then came the unlucky break, for the Royals, that year. If it may be said that in the long run it was a fortunate thing, that is getting ahead of the story again.

**C**HICAGO, in second place and giving us quite a close battle for the lead, was playing in our park. The whole city was excited over the race, and as many as could jam into the stadium were out to see the struggle. In the seventh inning we had a one-run lead, due to some fast base-running by Dawson in front of hits by Schulz. But Chicago filled the bases with two out. Things looked bad, because a good hitter was up. He swung hard at the first ball, but cut under it, and hit a high fly far back of second base. It was too close in for the center fielder to reach, and it looked to be too far out for any of the infielders to capture. All the runners started sprinting around the paths, there being two outs, as I said.

"I've got it," shouted Charlie Dawson, turning with his back to the plate to make his favorite over-the-shoulder catch which had sold him to Mike O'Brien in the first place.

"Mine," yelled Addie Schulz, at the same instant, going after the ball with more confidence than he would have shown a year before, when he left everything in disputable territory to the over-reaching Dawson. I would not undertake to say who should have made the catch. They seemed to have even chances, and neither, in the uproar from the crowd, heard the other yell.

The great crowd's shouted excitement changed suddenly to a roar of warning, but it was too late. The two sturdy athletes, running hard, each with an eye for the ball, collided head on as the ball came down. Both went down and out, cold, and did not rise. The center fielder came in as fast as he could, recovered the ball and shot it home in time to head off the third runner seeking to score; but Chicago had two runs in, and the lead.

Ballplayers and trainers ran to surround the two men on the grass, as the umpires called time out. Old Mike O'Brien, disconsolate, waddled across the diamond. Two doctors followed him. The crowd groaned in dismay. Presently, after hurried examinations by the doctors, some of the trainers and utility players picked up the two injured men, and took them off the field to the clubhouse.

I noticed that Schulz, stumbling and holding to the shoulders of his mates, seemed to be conscious, though dazed badly, but that Charlie Dawson, the wild, irrepressible youngster, seemed still out of his head. They dragged him along after the manner of an injured football player, each of two men holding an arm around his neck, and supporting him with a shoulder, his feet scraping on the ground, his head rolling from side to side.

The crowd groaned again in horror as well as in dismay at this weakening of the club. We in the press box awaited a report from the clubhouse, and the game was resumed with a patch lineup for the Royals. They lost, but none of us worried about it. We were too much relieved by hopeful word from the dressing-rooms.

"No concussion for either man, but we're taking them both to the hospital for further examination," the doctors said.

Four days later, after Chicago had swept the series and taken first place away from us, both boys returned to the game. Both were still somewhat shaky, but gamely insisted they were able to play. Both overdid themselves in their efforts to show that they were all right in every way, and for a time we thought they were O. K.

But neither of them hit well, and Schulz, especially, began to slow up in the field. Rather, he began to appear uncertain of himself. Double plays began to go wrong. Dawson became irritable, more so than ever before, and snapped and quarreled at Addie. The Royals lost games they should have won handily, because of the roughness in play around second and because neither of the boys hit.

Critics all around the league said the Royals were through, had shot their bolt. The boy wonders at second, they said, were mere flashes in the pan. And Dawson, especially, was a morning-glory, a false alarm. O'Brien studied his utility men, and shook his head. None of them could fill in as well as Dawson and Schulz, even with the pair off their game decidedly.

[CONTINUED ON PAGE 278]

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## DIAMOND CUT DIAMOND

[CONTINUED FROM PAGE 277]

He canvassed the player market to see where he could buy or trade for good infielders, but no infielders were available.

So the Royals struggled along at about a .500 gait, when they should have been winning two-thirds, at least, of their games. We gave up hope for the pennant, and began to wonder how Mike would rebuild his team for next year. I quit worrying about it, for the team was going on a long trip around the whole circuit, and I was to stay at home. The night before the last home game, I stopped in at the downtown office of the club to see Mike.

"It do beat all," he was saying. "We go like a house afire, and then these two boys get hurt, and the fire goes out. I don't know what we'll do, now."

There was a knock at the door, and Mike yelled, "Come in." He must have expected a scrub woman, or a messenger boy, for he was embarrassed to see a pretty, blue-eyed blond girl in the doorway.

"Nobody here, ma'am," he said.

"Wait, Mike," I spoke up. "It's Miss Schulz, Addie's sister. Miss Schulz, this is Mr. O'Brien, the manager of the club."

"Mr. O'Brien, I wish you'd do something, right away," spoke up the girl, hurriedly. "Addie and Charlie Dawson are out at the house—"

"Fighting?" demanded Mike.

"Get a-hold of some good eye specialists," exclaimed the girl. "Because I've finally found out what's the matter. Addie and Charlie got to quarreling and almost fighting about their game, and I made them admit the real trouble."

"What is it?" broke in Mike impatiently. "They can't see!" exclaimed the girl, excitedly. "I mean, they can see, but something's wrong with their eyes. They admitted it in this quarrel. But they said they'd kill me if I told you and—"

"They will not," said Mike, calmly. He was cooler now that he knew the trouble. "We'll get hold of them. I'll have them in the hands of the best specialists in the city, first thing in the mornin', my dear. And we'll get these young tigers straightened out if it's the last thing I ever do! Now, then, let's see—"

Now, I do not like to put myself forward in this story, but I cannot deny that I played one small part in it. Mike was called for getting hold of them byes, as he said, right away. Well then, first thing in the mornin'. But that would not enable the girl to get back to her rooms without the boys suspecting she had been plotting something.

"Mike, who is the best eye man in town?" I asked. "Let me take a hand. I'll take Miss Schulz home, and if the two boys are still there we'll tell them that I just chanced to meet her and had an idea about them. I'll suggest I think maybe they're having trouble with their eyes, and that we ought to see an eye specialist right away."

"Don't tell 'em I know anything," said Mike, falling in with the suggestion. "They been tellin' me they're all right, afraid to let on there's anything wrong, and—"

"That's it, exactly," Miss Schulz exclaimed.

SO we handled the thing in that way. The boys were still in the apartment when Anna and I got there, and they fell for my idea, after stipulating I should not tell Mike.

"There's nothin' wrong with my eyes," declared Dawson. "But if there is, we'd better find out about it. No use Mike worryin' about us."

We went to see this eye specialist, recommended by Mike, and he examined the boys as best he could. He said he could not tell exactly what was the trouble, but admitted he feared some pressure caused by the collision had impaired the efficiency of nerves leading to the eyes.

"Come into the office in the morning," he said. "I'll put some medicine in the eyes to enlarge the pupils, and then after twenty-four hours—"

"But we gotta play ball tomorrow afternoon," Dawson protested. "How d'yuh think the Royals can get along without us?"

So it was agreed that they should play the next day's game, come into the office before dinner and have their eyes treated, miss the train for Chicago, have an examination the next morning—and then hasten to rejoin the club, meantime fixing up an alibi to give Mike. But of course I told Mike the whole story, and he grew more hopeful. At least, he said, you can handle a thing better when you know what it is.

Next afternoon, therefore, I watched the final home game more closely than usual, trying

to make up my mind how badly the eyes of the two boys were affected, by studying their play. And that is how I happened to see the event that made Charlie Dawson a really great and fine ballplayer, and a strong and fine man.

It happened in the first inning. A hitter smashed a grounder through the pitcher's box. Dawson reached over to grab it. So did Schulz. Either could have taken it, but at the last instant each of them pulled up, and the ball went between them!

"Fish," yelled Dawson at Schulz.

"Whyn't grab it?" retorted Addie.

"At was my ball," Charlie growled.

"Yeah, and look at it," muttered Addie, motioning toward center field.

"You keep off my stuff," threatened Charlie, raising his right hand in a menacing motion.

All the pent-up, smothered resentment that Addie must have suppressed through months of being trampled on by the high-strung Dawson broke loose. He swung a hard right at Charlie's head and crashed him just above the ear. Charlie went down as if he had been struck with a mallet. Other players, some of them grinning because they were glad to see somebody smash the overbearing Dawson, ran to separate them. They expected a fight. Old Mike waddled out from the bench. The opposition hitter stopped on second base as the center fielder retrieved the ball. The umpires called time out. Everybody was set to prevent open warfare on the field.

And then everybody knowing the two boys got a distinct shock, for Charlie Dawson jumped up, laughing.

"Hey, boy," he shouted, "I sure had that comin', and look, look, Mike," he said to the fat manager, "I'm all right now. Sumpin' went click in my knob. I'll see things, now!"

"C'mon outa here," growled Mike, angry with the pair for fighting on the field. "Both of yuh!"

"Leave him in, Mike," protested Charlie. "It was my fault. I'm all right; I'll play. But leave him in," he begged.

"Out yuh come, Addie," Mike insisted, and wigwagged Addie to the clubhouse.

"Then send in Shorty," said Charlie. "We'll hold 'em down here. Gimme Joyce, Mike."

Dazed by this display of forgiveness, Mike dumbly called for Joyce, and the game went on. Addie dressed in the clubhouse, wondered what sort of fine Mike would impose, and then went downtown to see the eye specialist.

"Atta boy, Shorty," yelled Charlie, welcoming the shortstop he had despised. "C'mon, kid, we'll hold down this middle here."

Miraculously, Addie's blow to his head had jarred something into its proper place inside the boy's head. For he hit three doubles that afternoon, after going hitless for days, stole a base, and started two double plays, besides pivoting in the center of another!

I wish I could say that Addie Schulz came back as quickly, to become his old self again, but I cannot say that. The specialist helped him somewhat, but not enough. Charlie Dawson railed and ranted at the poor dumb fish that pose as eye specialists, but can't help a guy out of a hole like this one, and Anna Schulz cried, many times, over it. Addie could only shake his head.

The Royals pulled themselves together, with Charlie Dawson playing great ball and hitting a ton, and gave Chicago a real battle down the stretch, but even so they could not quite get to the front. Shorty Joyce bloomed into a fair player, with Charlie's help and coöperation at the bag.

And that is the real and inside story of how Charlie Dawson became a really great ballplayer, and a man into the bargain!

### CHAPTER VII

#### Cut and Polished

WHAT? Only the beginning of the story? Well, maybe you're right, at that. I know as well as you do, or better perhaps, what else happened. You've read about the three consecutive pennants the Royals won, and of their two successful battles for the World's Championship—and of the beautiful fielding and throwing of Charlie Dawson, as well as his sharp, driving hitting. But if you must have the real, absolute low-down on Charlie Dawson, I'll give it to you.

"Mike," said Charlie to O'Brien after the season closed, "about next year. I'll be a better ballplayer, because I've got more sense than I had. Now then, Shorty's a nice little guy, and all like that, but we gotta do better at second base. I can't always play all the ball around

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second that needs to be played. And we gotta have a winner, a Series winner, for I need the dough. Need it bad. Suppose— And he hesitated.

"Go ahead and suppose," prompted Mike. "It don't cost a dime."

"Well, I chased a darned good second baseman offa this club awhile ago," said Charlie, flushing. "I didn't have any more sense. He's a ballplayer, and I can work with him. I will work with him, too. Suppose yuh get old Len Drew, and let us show yuh a real second-sack combination!"

"Len ain't looked so good this year," Mike objected. "Maybe he's through."

"He is not," Charlie argued. "He knows enough ball, with what I can play, to make us the best in the business. See? Get him back, Mike. I'm sorry I ever elbowed him out. Gosh, I must have been a mess of a guy when I was young."

Mike told me afterward that he had to laugh—this young squirt remembering when he was young! But Mike did get Drew back, and the first guy to shake hands with him was Charlie Dawson, and if anything had more to do with the Royals' winning the way they did, three years in a row, than the stonewall, airtight, water-tight defense those two put up at second base, nobody knows what it is. They were better together, helped each other more, and got along together better than any second-base pair I have ever seen—unless, perhaps, it was Charlie Dawson and Addie Schulz!

"And, Mike, yuh could kinda keep Addie around next year," said Charlie, "to see how he comes out? Utility, or sumpin? He'll mebbe pull through again."

Mike did, but poor Addie didn't. Poor Addie could not get his sharp eyesight back, and that is half of the rest of the story.

Charlie Dawson, his chin firm and his eyes flashing, interviewed little Anna Schulz not long after he had this talk with Mike about Drew and Addie. It was unbeknown to Addie, of course.

"Yuh see, girl," he said, "it's this way. You asked me what I was studying, and what for. You thought I wouldn't do anything for anybody else, or even anything decent for myself. Well, I've kept on studying. I've got three years' credit at Albert, now. And I know what I'm gonna study. I'm gonna transfer those credits to the medical college here—"

"Now you're beginning to talk sense, Charlie Dawson," said Anna.

"And I'm gonna begin studying medicine," Charlie continued. "I'll play ball as long as I'm any good and can draw down top salaries. And by the time I'm through I'll be ready to begin specializin' in the thing I'm gonna specialize in," he concluded.

"What's that?" asked Anna.

"Eyes," said Charlie. "These fish treatin' eyes may know all there is to know now about eyes, but if a guy went at it right and studied hard, here and in Paris, maybe, he could know still more."

"That's sense, too," Anna laughed. She had begun to be proud of this tall, good-looking boy, and perhaps even prouder of the part she had played in his transformation.

"And, Anna, listen," Charlie went on, lowering his voice. "Maybe I won't be in time to help Addie any, see? He's not going blind, or anything, but he can't see well enough to play ball, though Mike's promised me to keep him on next year and give him a chance to come back. But Addie's helped me a lot. More'n you know anything about. More'n he or anybody else knows anything about. Just like he's helped you, Anna. That's the kind of a guy old Addie is, see?"

"Yes," Anna agreed, knowing full well what was coming.

"Now, Anna, I think I can help—uh, we can help old Addie," Charlie plunged ahead, boldly. "What I mean, let's you and I help him, the way he helped us. Stand by him, I

mean. I'll make this old ball club earn a Series split every year for a while, and with my salary we'll have enough for me to study medicine, you to study art, and old Addie to get himself a new start in life before he's too old."

"Charlie Dawson, you're talking nonsense, now," protested Anna, flushing.

"And maybe, Anna, when I got to Paris—why listen, you could finish your art study in Paris, too!" the boy exclaimed. "Isn't that where all the artists go?"

"Nonsense," Anna repeated, biting her lips at thought of the alluring picture he painted.

"Why? What's nonsense? It's a good argument I've got, for I've figured it all out," Charlie insisted.

But you're not making a good argument out of it," Anna replied, laughing.

"Listen, Anna, I'm just crazy about you, and the kind of girl you are, and—"

"Now you're talking sense again," Anna giggled. "That's what I was waiting to hear!"

And so that was the way of it—all except the very last half.

ALL the Royals, through these last several years, would fight for Charlie Dawson, at any time, against any odds. He's everybody's right-hand man. He's the fellow with the big voice and the pat on the back for the other guy. He's always backing up the pitcher. He's always putting in his oar for some of the other men, when they need an oar. And on top of all that he's still hitting them on the nose, and grabbing an extra base when it looks impossible—yes, and either starting a double play, or taking a long chance and making a whip throw to get the "big one" instead of playing safe and getting the hitter. You know—the big one, the runner on ahead of the hitter.

The mainstay of the club, through those three hectic campaigns; the mainspring in two victorious World Series drives; the apple of Mike O'Brien's eye—"I knew him when I seen him pull that old football down outa the air from behind his back, over his head. I spotted him for a sweet ballplayer right that minute," says Mike. "And I'm right about him."

"Who? Old diamond in the rough?" asks Joe Wiley, no longer the crab, as far as Charlie Dawson is concerned.

"Yeah, diamond, but not in the rough any more," says Mike. "I'll tell th' official scorer he's cut and polished now, to a fare-you-well."

"Diamond cut diamond, was what you said, Mike," I suggested.

"But who was the diamond that did the cutting?" says Joe. "Old Addie Schulz?"

"No, his little blue-eyed wife, Anna," I insist.

"All of 'em part of the diamond," Mike proclaims, finally. "At old baseball diamond, what I mean."

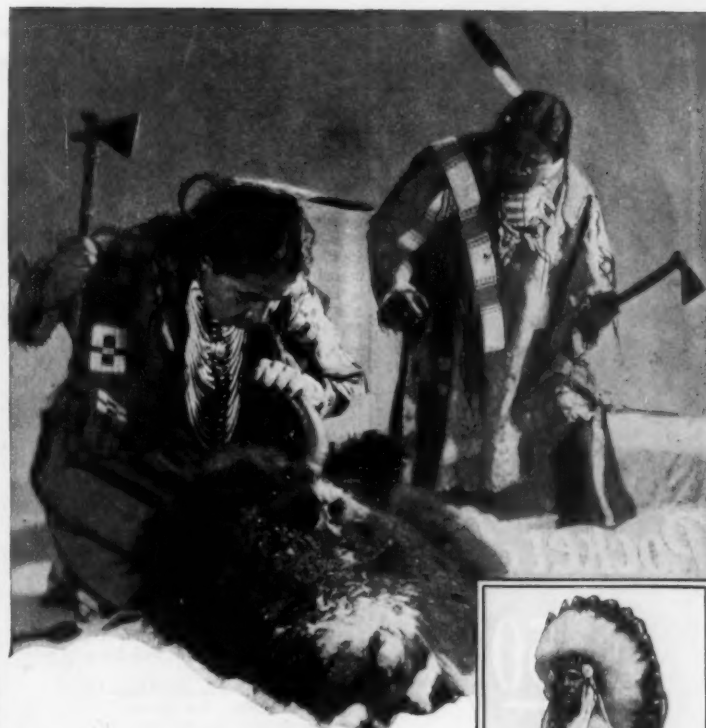
And maybe he is right, at that.

Of course, the story got out and around that Charlie, with all the grand unselfish baseball he is flashing, is studying at night and in the winters, to be a physician. Also, they tell it about that he is going to specialize in diseases and weaknesses of the eye. The fans know all about it, and they tell a good story—

"Yuh see that big guy out there lammin' 'at drive to left center? He'll get three bases on it, or I'm a sucker! Well, 'at's old Doc Dawson. Studyin' to be a medic. Yeah, an eye specialist. Boy, he made it—some slide into third! Yeah. Eye specialist, because awhile back he had trouble with his eyes and couldn't find any doctor to fix him up. Kinda fixed himself up some way, and now he swears he's gonna know enough about it to take care of his eyes, see? Some guy!"

Which is not a bad story, as stories go. The only trouble with it is that it is not true—only half true. But we can let it slide, for we know the other half, about Addie Schulz—that's the other half, and all of it. All of the real story of Charlie Dawson, man and ballplayer!

THE END



## "How we Blackfeet were saved in the year of the Big Snow"

ONE winter we came near starvation. Our braves hunted over the plains for the frozen heads of buffalo they had killed early in the fall. They chopped the skin from the tops of the heads and our mothers cooked it for food. We were saved by finding a herd of mountain sheep which had been driven down into the foothills by the big snow. We slew the entire herd and ate them on the spot. On many occasions like this, our lives depended on the endurance of our legs and feet in hunting game for food.

"In our primitive life nothing was more important than our feet."



Told by  
**Buffalo Child Long Lance:**  
Full-blooded Blackfoot Indian Chief. Trick rider with Buffalo Bill, Tackle, Carlisle football team. Captain, World War (wounded, decorated for bravery). Author of "Long Lance."

I wonder if the white race would not be sturdier if they took better care of their feet in childhood—by wearing shoes that allow free exercise of the foot and leg muscles.

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*By Long Lance*

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The Relay. Rubbercleats on soles accustom your feet to football shoes.



**WHEN** Lieutenant Crandall was washed off Submarine S-5 his body could not be recovered. "Washed overboard!" snorted the Admiral of the Fleet. "Fine lot of officers we've got!" **Q** Dick Armstrong, who commanded the S-5, had broken fleet regulations in taking Lieutenant Crandall with him. But although Armstrong did not believe Crandall dead, he had to explain what had happened—and to a Naval Court of Inquiry. **Q** What he found makes the most exciting long story of the year—told by Fitzhugh Green, famous writer of adventure stories. Watch for

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## THE BUGGY-WHEEL BASS

[CONTINUED FROM PAGE 249]

Steve followed instructions, and his host was awaiting him as he neared the little dwelling. Inside it consisted of just one room that served all purposes, but it was comfortable enough and as neat as wax. There were a number of fishing-rods on nails above the small fireplace, and dozen of artificial lures were dangling amongst them. Those things interested Steve, and Mr. Hemwitt exhibited them all, reminiscing as he did so. But finally they were seated on the edge of the tiny porch that ran across the front of the cabin and Steve had put his question about the buggy-wheel bass. Mr. Hemwitt turned the twinkling gaze of his very bright blue eyes to his visitor and made answer.

"Yes, sir, there most certainly is a bass in this lake that's called the buggy-wheel. He's been seen many's the time, and he's been almost caught by four men that I know of. And I'm one of them."

"You mean you actually hooked him, sir?"

"Twice. The first time was two years ago next month. He got most of my leader that time. Then last July I got him right up to the boat, and he bust the snell and got away again."

"Gosh," murmured Steve, "he must be a big one!"

"Is. Not so awful long, not more than sixteen inches, likely, but mighty big t'other way. I never saw a broader bass in my life, and I've seen a-many. Black, he is, well down the sides; a real old-timer, I guess."

"And he's still uncaught," mused Steve.

"Still uncaught. But he and I will get together again some day, and then, by gum, we'll see if it ain't my turn. Got so it's kind of a matter of pride with me now." Mr. Hemwitt chuckled. "Fishing doesn't mean one thing for me but the Big Fellow."

"Well, sir, I do hope you get him," said Steve.

"Expect I will—sooner or later," replied Mr. Hemwitt with quiet conviction. "I've had him on twice, and you know what they say about the third time!"

Steve managed by the next day to enthuse Warry on the subject of the buggy-wheel bass, and they paddled over to Second Point and sunk an anchor about where Mr. Hemwitt spent his Saturdays. But, although they stayed until almost supper time, they got never a nibble. Again on Wednesday Steve spent two hours there,—alone this time,—and again his vigil was undisturbed, and he decided that the Big Fellow was not for him. And perhaps he wouldn't have taken up his rod again that summer if it hadn't rained all of the following Sunday and kept it up on Monday. When it subsided at two o'clock to no more than a heavy drizzle Steve suggested trolling, and Warry, bored to extinction, welcomed the idea. They donned heavy sweaters, loaded a canoe with what Warry called "fishing junk" and set forth. Warry paddled, and Steve snuggled himself in the bow and trailed a brilliantly colored wooden minnow some fifty yards astern. That minnow was a crafty affair, fashioned to swim just under the surface with the pathetic wavering of a crippled fish. But, although the afternoon was theoretically ideal for its purpose, the minnow failed to receive any attention. Warry paddled down the shore to North Bay, skirted the rushes and came back on the other side, and save for an occasional halt to clear the bait of grass or weed the voyage was uneventful.

They passed Third Point and brought their own beach and clustered tents and cabins dimly into view across the water, and Warry, beginning to tire of the monotony of his task, swung the bow of the canoe toward home. But Steve begged for another stretch of the shore. "Just go on past Second Point, Warry, and we'll get the old buggy-wheel bass and have him for supper!"

Warry grinned derisively but headed back to parallel the shore. Second Point and the little beach passed, and after a dozen more strokes Warry glanced inquiringly at Steve. Steve looked back past his companion and estimated the location of the minnow. "Only a little farther," he said. "It's just about coming to the buggy-wheel now, Warry, and the old bass is eyeing it and licking his chops. About ten more strokes—"

The reel sang and the line slipped lightning-fast through the guides! "Wow!" yelled Steve, grabbing for the twirling handle. "I got him!"

"Yeah? Where is he now?" asked Warry. For the line was coming back to the reel easily enough, and Steve's face began to fall. "Hit a snag, I guess, and broke loose again. Reel in and let's get home, Steve."

"We-ell," muttered the other, "but—"

Whe-e-ee! went the click, and once more Steve sought agitatedly for the handle; and

then, back by the end of the point, a great fish broke the water, strove mightily to shake loose from the lure and fell back again with a splash that seemed to wake the echoes!

"Want any help?" yelled Warry. He dropped his paddle and made a grab for the line.

"Don't!" gasped Steve. "Don't touch it! I'll—I'll get him!"

There was drama then under the dripping, overhanging pines. The big bass made a gallant fight, rushing madly away while the reel shrieked, stopping finally to sulk a moment before yielding grudgingly to the efforts of Steve's aching fingers. Twice more he spun upward into the gray mist, every inch of his powerful body in agitated protest, yet each time nearer the canoe. Warry, his brown eyes fairly popping, watched in silence save for an occasional explosive exhalation of despair or triumph as the struggle favored prey or captor. Steve, pale of countenance, was cool enough now. He had fought bass ere this and knew their ways. He didn't attempt to win an early victory. It was far wiser to let the big fellow tire himself out before attempting to land him. He kept his line free from slack, let the fish feel the spring of the rod when he could, and won the battle inch by inch as the dripping silk cord wound back on the spool. He spoke only twice during the struggle, once to warn Warry from attempted assistance and once to express a fervid wish that they had a gaff instead of a net!

Then, finally, the big bass was alongside, still darting wildly, the pole was bending alarmingly, and Warry, breathing stertorously, was reaching outward with the landing-net. "Not yet," gasped Steve. "Wait till I get him. Now!"

**A** THRASHING of the surface, a shower of drops, and the net, a violently agitated net, was heaved into the rocking canoe. And Steve and Warry sank to their knees and gazed. Here beyond the shadow of a doubt was the buggy-wheel bass, black of back and sides, colossal of girth, staring up at them with still indomitable eyes! He began to fight again now, and Warry fell upon the net to keep it down, while Steve deftly extracted the hooks and removed the minnow.

"We'll have to kill him," panted the latter. "Use your knife," counseled Warry. "Try to brain him, and you'll stave a hole in the canoe!"

"That's right. Keep the net over him! Gosh, isn't he a corker?" Steve straightened himself on his knees and thrust a hand into a pocket in search of his clasp-knife. As he did so there came across the water the deliberate creak of oarlocks, and he looked toward Whisper Cove. Dimly through the drizzle he made out the ghostly shape of a rowboat coming toward the point. In it was a small lone figure—Mr. Hemwitt! Mr. Hemwitt, hopefully returning for another bout with his ancient enemy the buggy-wheel bass! Steve forgot the knife and stared thoughtfully into the mist.

"Hurry up!" growled Warry. "Want to lose him? I can't hold this net forever!"

Steve's eyes drew away from the still distant skiff. "What? Oh, yes, I've got it!" He drew out the knife and edged closer on his knees. And then in the most clumsy fashion he somehow lost his balance and toppled heavily against the gunwale. There came an alarmed shout from Warry that was speedily silenced in a tremendous splashing, and they were both floundering in the lake!

Beside them was the glistening blue hull of the overturned canoe, a landing-net, a fishing-rod and one canoe-back. What wasn't to be seen was the buggy-wheel bass.

The next afternoon Steve sent the fisherman's hail across the ruffled, sunlit water. "What luck, sir?" he called.

Mr. Hemwitt smiled and waved a hand. "None yet," he answered cheerfully. "You can't hurry the Big Fellow, you know. But there's time enough. Time enough."

Steve's canoe floated closer under the little breeze, and presently he asked: "Mr. Hemwitt, when you do catch him what will you do with him?"

"Do with him?" He was silent then, his wrinkled countenance expressing perplexity. When he finally replied his tone held genuine surprise. "Why, now, I never thought about that! No, sir, I never did." He leisurely applied a match to the bowl of his blackened corn-cob, frowning thoughtfully. Then Steve saw the corners of the ancient mouth curve upward and heard a faint chuckle as the twinkling blue eyes came back to him. "Guess," said Mr. Hemwitt, gently, "there ain't but one thing I can do with him, and that's put him back!"

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**50¢**

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## SPORT

[CONTINUED FROM PAGE 263]

## College Baseball

[CONTINUED FROM PAGE 263]

asset as the originality of his expression and personality. No one ever accused Hans Wagner of being graceful. He was, nevertheless, the greatest shortstop and hitter of his day. Simmons of the Athletics is a "bucket stepper" hitter, but he hits. Mordecai Brown won more ball games as a "three-fingered" pitcher than some pitchers ever get in, and yet he has a jerky motion. Some men are graceful naturally and others are awkward naturally, but both types reach the pinnacle. Others are creatures of copy-book and cramped styles, and unless they can shake them off it's a blight on their careers.

Keep your own personality in your style of play, always remembering to be perfectly willing to listen to helpful suggestions from a coach who will weigh carefully what he has to offer. It is a foregone conclusion that more mechanical errors take place because of copy-book hands than awkward ones; more strikeouts are recorded because of cramped swings than through lack of eyesight; and more "bonehead" base-runners are shot down because of imitation steals than lack of sturdy legs.

Thus, when you get down to brass tacks on what to do to prepare yourself for college baseball, it's largely a question of, first, will you go into baseball and learn its details through faithful application; second, will you accept the game as your best coach and be content with a gradual development; third, will you, to the best of your ability, try to cure your early weaknesses by hard work; and, fourth, will you come up to college a natural type of player, ready and willing to take suggestions?

Here are a few hints which are easy to apply and which ought to lay a good foundation for further coaching:

## Batting

Swing only at good balls. Hit behind a runner as much as possible. Hit when you have the pitcher in the hole—one ball, no strikes; two balls and no strikes; two balls and one strike; and three balls and one strike, the last case depending, of course, on the pitcher's wildness. Learn to hit the pitcher who dares to throw you two successive strikes just alike. If you miss one curve, hit the next one that comes over. Run out everything. Learn to bunt the ball.

## Fielding

Go after everything. Cover your base. Get the ball before you do anything else. Play the ball, and do not let it play you. After the error retrieve the ball quickly and *think* as well as look before you throw. Every player makes an error—few make two in a row that do not cost a ball game. Try and be at the right place at the right time. Try a play rather than do nothing when a runner is deliberately taking advantage of you. How else can you learn?

## Base-running

When you get to a base hold it until the pitcher gets the ball and is again ready to pitch. Keep your eye on the ball even while running. Sacrifice a second in speed in order to get an "eyeful" of a play behind you. Except when you are forced to leave third base, stay there with no one out unless you can walk home safely. When you are trapped prolong the agony and give other base-runners a chance to go as far as possible. Keep this in mind—as long as you are on a base you are a potential score.

## Playing First Base

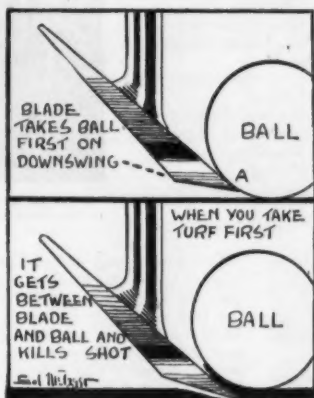
[CONTINUED FROM PAGE 263]

From the position now occupied the first baseman is in the best possible position to catch any throw. He has lined himself up with the center of the base to aid the fielder and thus make it easier for the latter to throw truly. When the throw is good he reaches out for it in order to catch the ball at the earliest possible moment. There are many close decisions, especially at first base, as anyone who goes to baseball games will admit. The percentage is greatly in favor of the first baseman who reaches out for the ball. It is against the one who catches it while standing erect on the sack.

This balanced position with both feet under

him enables the first baseman to make every possible putout. If the throw is wide and to his right, he steps as far out that way as he can without pulling his left foot off the base. If wide to his left, he steps out for it with his left foot and keeps his right on the nearest corner of the bag. He doesn't run out for it, make the catch and then return to the bag, unless the throw is so wide he has to leave his base.

—S. M.



## The Pitch Shot

**GOLFERS!** Let's get ready for a bully article on this game in next month's issue by Johnny Farrell, the United States open golf champion, by analyzing the pitch shot to the green. It's the shot played with a mashie, mashie-niblick, spade-mashie or even a heavy niblick, all of which are lofted clubs, in order to get the ball high into the air and drop it "dead" where it falls.

It's a hard shot to fathom, because the golf stars in describing it tell us that you hit the ball underneath its center when swinging the club down. If that sentence isn't contradictory then none ever was. But let's take it apart and see just what it means. A sketch accompanying this article in order to clear up this seemingly conflicting statement to the effect that you hit the ball underneath when swinging your club down into it.

The first thing you must know about a pitch shot is that the face of the blade of the club must strike the ball just before taking turf; that is, before the lower edge of the blade digs into the grass and sod. That is the way it is being done in the upper panel of the accompanying sketch. If you misjudge your swing so that this lower edge of your blade digs into the sod before encountering the ball, as pictured in the lower half of the sketch, your shot will not be good. The first reason is that the sod between the blade and the ball makes a soft cushion that softens the blow. Second reason: the very fact that you strike the ground first naturally takes a lot of the punch out of your swing. You can't make the club travel so fast through soil as through air. All this is perfectly clear. Now let us get down to the real problem—hitting the ball underneath with the face of the blade of your club when swinging it down into the ball.

Take a good look at the upper part of the accompanying drawing, and maybe you can see how this is done. The dotted line back of the blade indicates the course the blade is taking as you swing it down into the ball. It strikes the ball at the point A, which is under its center. Now doesn't the perplexing statement clear itself? Isn't the blade actually hitting underneath the ball although descending? You just bet it is!

And that's all due to the fact your approaching iron—mashie, mashie-niblick, spade-mashie and niblick—have lofted faces. That is, they slope back.

Now a ball struck in this way goes high into the air with what is known as backspin, or "stop." When it drops upon the green its backspin is working so hard for you that your ball takes a few short bounds and stops, whereas, if it did not possess this spin, it would roll forward and over the green.

Study your golf pretty carefully. See what you really know about it before the next issue reaches you, so you can profit fully from the fine dope Johnny Farrell, the champion of champions, has written for you in our June number.

—S. M.



## Champion Pistol Shooter Demonstrates the Bull's-eye Accuracy of Western Lubaloy .22 Cartridges

**SERG. J. H. YOUNG** of the Portland Oregon Police Department has demonstrated the remarkable accuracy of Western Lubaloy .22's better than words can tell the story.

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Prof. Edward P. Warner, head of the Department of Aeronautical Engineering at M. I. T.

## Do You Want to Be an Aeronautical Engineer?

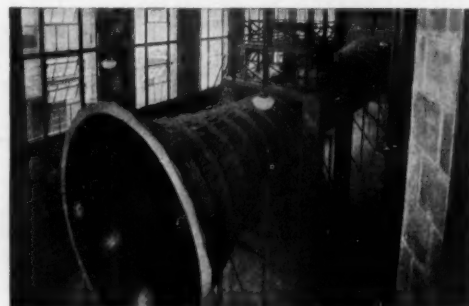
*The Lab's great scholarship contest offers you the opportunity*

HAVE you ever watched the night mail fly high above your head, or seen a great passenger plane take off for a distant city? Have you wished that you might some day take a part in this science which is changing

cludes the new Daniel Guggenheim Aeronautical Laboratory, a separate building containing two large wind tunnels, one of which you see at the right, class and drafting rooms, and on the third floor a room large enough to house a fully assembled plane.

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Turn now to page 226 of THE YOUTH'S COMPANION for April and read the first announcement of the 1929 scholarship conditions. There is still time, if you write at once, to submit the 200-word letter on the subject "Why I Should Like a Technical Education."

All letters must bear a postmark not later than midnight, May 1, 1929. Those received after that date cannot be considered.

If you have already sent in your letter, remember that you must satisfy us by August 1, 1929, that you are qualified to enter the Institute as a freshman student.

By August 15, entrants must have submitted three original projects, accompanied by descriptions, photographic illustrations, etc. Largely on these projects, the final award will be based.

If you have already entered, and require further details, or if you have questions you wish to ask, address your letter to

THE DIRECTOR, Y. C. LAB  
8 Arlington Street, Boston, Mass.

IN two previous articles\* I have described for Lab Members interested in the science of chemistry how to fit up a small home chemical laboratory, and how to perform simple analytical tests with the materials in such a laboratory. Members who have followed these articles closely should now be in a position to put chemistry to work—to use the elements and compounds to produce some useful result.

For the present we will take only two simple cases—the construction of an electrical cell which can be used to ring doorbells, run small motors and for other purposes where only a small current is required, and the construction of an apparatus for simply and rapidly cleaning silver. To understand what happens in both these cases we must first consider the nature of the ion. When a salt like sodium chloride, which is the chemist's name for ordinary table salt, is dissolved in water, most of the individual unit particles, or molecules, of sodium chloride break up and form other and still smaller particles called

\*The Mysteries of Molecules, page 142, March, 1928, and Clues for the Chemical Sleuth, page 48, January, 1929.

## PUTTING IONS TO WORK

How Lab Members can make these particles of matter work for them

BY LAB COUNCILOR Stephen G. Simpson

Instructor in Analytical Chemistry, MASSACHUSETTS INSTITUTE OF TECHNOLOGY

ions. These ions, unlike the molecules, carry definite electrical charges. The sodium chloride (NaCl) in dissolving forms positive sodium ions (Na<sup>+</sup>) and negative chloride ions (Cl<sup>-</sup>). Other salts, acids and alkalis behave somewhat similarly, although ion formation varies among different substances, just as the charge on the ion itself varies with the substance. Ions are infinitely small—too small to be seen with even the most powerful microscope. It is not their size, but their peculiar properties, which make them of practical use to us. Ions and ionic equations, properly controlled and manipulated, are at the basis of many of the most important industrial processes.

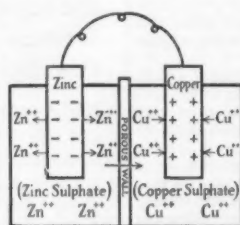


Fig. 1: a diagrammatic representation of what goes on inside a Daniell cell

reactions become continuous, equilibrium is constantly destroyed, and the zinc strip gradually dissolves, while copper plates out on the copper strip. More important to us than the plating is the fact that, since the copper is constantly being made electrically positive, and the zinc negative, an electric current will flow through the wire from the copper to the zinc. In the solution it flows in the opposite direction—from the zinc to the copper. By means

of the wire we can harness this energy and use the current to ring bells, run a telegraph set or perform other useful work.

The cell made in this way is the familiar Daniell cell and furnishes an electromotive force of about 1.10 volts. The commercial cell consists of a zinc rod with zinc sulphate solution in a porous porcelain cup, with a copper plate and copper sulphate in a surrounding jar. Sometimes the solutions are separated only by gravity and the porous cup is not used. The Daniell cell is most useful on a closed circuit where a small constant current is desired.

### How a Battery Is Made

If we take crystals of zinc sulphate (ZnSO<sub>4</sub>) and dissolve them in water, they break up into zinc ions bearing a double positive charge (Zn<sup>++</sup>) and an equal number of sulphate ions bearing a double negative charge (SO<sub>4</sub><sup>--</sup>). The entire solution remains electrically neutral. Now, if we place a strip of zinc in the solution, nothing, apparently, happens. Something has happened, however—the metallic zinc has dissolved to an infinitesimal degree, giving the solution an added number of zinc ions, and leaving the strip negatively charged.

The next step is to take another glass or beaker of water and dissolve it in crystals of copper sulphate, sometimes called blue vitriol (CuSO<sub>4</sub>). A copper strip dipped in this solution will not act as the zinc strip did in the solution of zinc sulphate. The copper will not dissolve, even infinitesimally, but the positively charged copper ions in the solution will tend to plate out on the copper strip as metallic copper, giving up their charges to the strip, and thus making it very slightly positive. Now, if we connect the two metal strips by means of a wire and allow the two solutions to come in contact with each other through a porous wall (Fig. 1), the two

Let us assume that we have a silver spoon on which is a large tarnished area of silver sulphide. If we place the spoon in a solution of sodium carbonate, of which washing soda is a crystalline form, and sodium chloride, the silver sulphide of which the tarnished spot consists will dissolve very slightly. Silver sulphide is a highly insoluble substance, but, like everything else, it will dissolve very slightly, furnishing sulphide ions (S<sup>--</sup>) and twice as many silver ions (Ag<sup>+</sup>). Now, the silver spoon is in contact with silver ions, just as the copper strip was in contact with copper ions in the Daniell cell. Suppose we add a strip of aluminum or zinc to the solution. What will happen? From what we have seen of the Daniell cell the aluminum or zinc should go into solution and leave the strip negatively charged. Silver ions from the dissolved silver sulphide should give up their positive charges to the spoon and plate out on it as metallic silver. More silver sulphide should dissolve, and its silver again plate out as metallic silver on the spoon. This is just what happens (Fig. 2). In addition, a current flows from the spoon to the aluminum strip, as we might expect from what we know of the Daniell cell, but in this case we are not interested in the current. What does interest us is that in a few seconds' time the tarnish has completely disappeared, leaving the silverware as clean and bright as the day it was bought. The reaction of the ions has cleaned the silverware in much less time, and with much less damage to the silver surface, than any silver polish could have.

### How It Is Done

If you are interested in polishing silver by this method, here are specific directions which will aid you to do it successfully:

Pour into an agate dish enough water to cover the silverware to be cleaned. For each quart of water add one heaping teaspoonful of washing soda—*not* baking soda—and a teaspoonful of table salt. In the bottom of the dish place a strip of aluminum or zinc, and heat the solution nearly to boiling. Then put in the tarnished silver, making sure that it comes in contact with the aluminum or zinc strip. At the end of fifteen seconds the stains should have completely disappeared. Remove the silverware, rinse in cold water, and wipe dry with a soft cloth.

Instead of an agate dish and a strip of aluminum, an aluminum dish itself may be used, but, since the carbonate solution slowly dissolves it, only a discarded dish should be used.

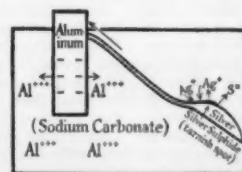


Fig. 2: how aluminum can be made to clean your silverware

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## THE Y. C. LAB

## JUNIOR ENGINEERING

A new feature for Lab Members who are interested in construction projects, conducted by COUNCILOR DALE R. VAN HORN

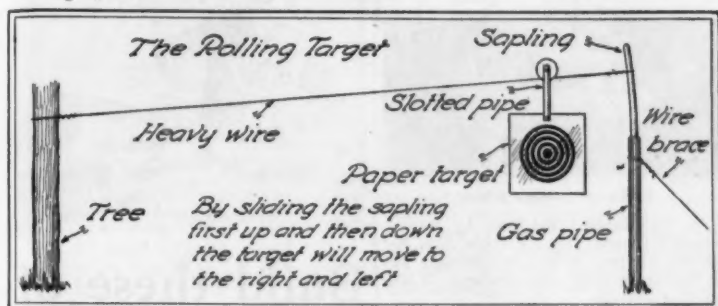


Figure 1: a target that moves

## How to Make Your Own Targets

NO training is better for eyes and nerves than target shooting, either with a small-bore rifle or an air rifle. A boy trained to shoot accurately is very apt to carry a steady hand and a clear eye into later life. To learn to shoot you must have not only a gun, but a target. If you live in the country there are dozens of targets ready-made—stumps, rocks, and the like, which can be used with perfect safety. In more thickly settled districts some artificial target is necessary, together with a backstop to take care of the stray ammunition. This is extremely important, for no one should ever aim a firearm of any kind without being perfectly sure that the bullet can harm neither persons nor property.

There are four targets on this page, all of them unusual and easily constructed. Fig. 1, a moving target, is perhaps the most complicated, and we will leave that until last. In Fig. 2 is one of the most easily made. Take any hard rubber ball and suspend it by means of an ordinary screw eye, screwed in as far as it will go, to a cord fastened to the branch of a tree or some other object, so that it will swing easily. Shoot at this at ten paces—first, while the ball is perfectly stationary, and again, when you have had more practice, when it is swinging back and forth. When the ball is struck squarely, it will jump slightly, but if the blow is glancing it will simply spin.

Fig. 3 shows a target which, when used with an air rifle, will salvage your shot for you. The drawing needs very little explanation. The target face is a square of stout cloth, such as a burlap bag, preferably about two feet square, with circles painted on its face. It is tacked to a cleat at the top of an ordinary drygoods box and is then cut into strips about three inches wide. The bullets pass through these strips and strike an old quilt which has been doubled together and tacked to the bottom of the box. A strip of wood at the bottom, the shot guard, prevents the shot from rolling out. This target



Figure 2: how the rubber ball target is made

is best adapted for use with an air rifle. To tell where a shot hits, it will be necessary to watch the strips closely.

In Fig. 4, is an ideal target for small rifles. The target itself is a steel disc, which you can obtain from almost any scrap-iron pile or dealer in scrap iron, bolted to the inside of a wash tub. The bullet will strike the steel and scatter, but the sides of the tub, which may be either of metal or of wood, will prevent the particles of lead from traveling any further.

Fasten the tub to a short post by means of a long bolt and a short piece of pipe, which will hold the disc in front of the tub bottom. Tighten the nut at the back so that all parts will be held solid. Keep a pot of whitewash handy and after every few shots give the disc a fresh coat. This will show where each shot strikes. As with the other targets, some perfectly safe background must be provided, for stray

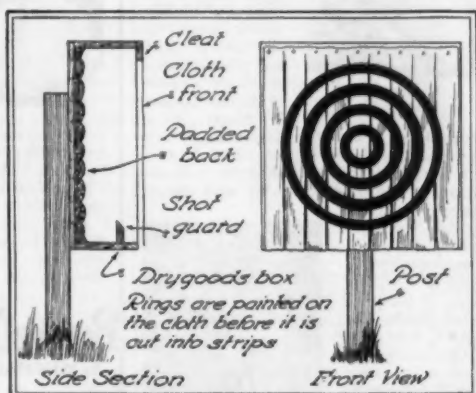


Figure 3: a target which will salvage air-rifle ammunition

shots will go straight through the bottom of the tub.

A more complicated target is shown in Fig. 1. In this device the target face is made from a square piece of heavy paper, painted with black circles and weighted at the bottom with a small piece of wood. Since each target will be torn to pieces by twenty or thirty shots, it will be necessary to have a number of them before you start shooting. The target carriage, which slides back and forth on the wire, is made from a wheel three or four inches in diameter, which may be turned out on any woodworking lathe, and a piece of pipe three-quarters inch in diameter and ten inches long. A wide slot is cut in one end, in which the wheel is fastened by means of a stove bolt, and a narrow slot in the other, through which a hole has been bored to hold the nail or cotter pin which secures the paper target.

Raising or lowering the sapling which is held by the piece of gas pipe set in the ground will make the target roll from one end of the wire to the other. Two persons will be necessary to operate it, one to raise and lower the sapling, while the other shoots.

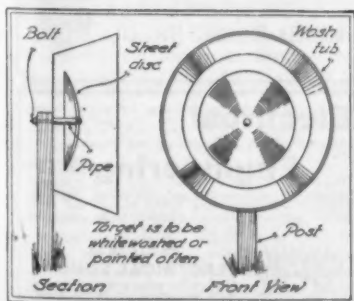


Figure 4: the wash-tub target

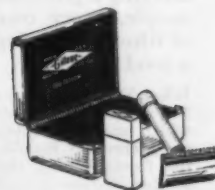
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## THE Y. C. LAB

### The Honors List for May

Ten ingenious Members of the Y. C. Lab receive cash awards and national recognition for their projects



1: Member Halton's project

ROW HALTON (15) of Newlin, Tex. His project, shown in Illustration 1, is a periscope, which he constructed from two small mirrors and ordinary



2: Member Runyan's project

pine lumber. Periscopes are used in all submarines and are standard equipment on many kinds of airplanes, including the famous Spirit of St. Louis. In addition to a photograph, Member Halton included working drawings, which are always helpful to the Director in judging a project. In Illustration 2 is a woodwork shop built by Member GRANT RUNYAN (14) of Louisville, Ky. It is in the attic of Member Runyan's home, and is equipped with a homemade lathe, circular and band saws and many other useful pieces of equipment. On page 283 you will find in the Lab's new department, "Junior Engineering," directions for making unusual targets. Lab Members who have already built targets of their own will be particularly interested in this article. Among them is ROBERT FRENCH (15) of Blue Ash, Ohio, whose shooting gallery, with metal targets to represent birds and rabbits, is shown in Illustration 3. The gallery is constructed for use with a small-bore



4: Member Fogwell's project

and rabbits, is shown in Illustration 3. The gallery is constructed for use with a small-bore



5: Member Lown's project

rifle and is backed with sand to prevent any of the bullets passing through it. Another ingenious shooting gallery is shown in Illustration



6: Member Larche's project

4. It was designed and built by Member CHARLES S. FOGWELL (17) of Phoenix, Ariz., and won the first prize in the Lab's shooting gallery contest conducted some time ago. It con-



7: Member Mairs' project

WORTH H. LOWN (15) of Milltown, N. J., whose project, a chemical laboratory, is shown in Illustration 5. Member Lown made the lab table himself and has collected 120 different chemicals. Another Lab Member who is interested in woodworking is Member FRANK LARCHE (18) of Digby, N. S. His project, a very ably designed scroll saw, is shown in Illustration 6. Member Larche thinks that its best feature is a blade guide made of old hacksaw blades, which keeps the saw from twisting when used at a high speed. Member GEORGE W. MAIRS (16) of



8: Member Rich's project

Novi, Mich., is shown in Illustration 7, with his project, an electric lantern, which he made at a cost of 45 cents, including the bulb and battery. A hiplane of his own design, equipped with landing



9: Member Meloon's project

skis like those on the planes which Commander Byrd is using in the Antarctic, is the project of Member EDWARD S. RICH (10) of Charleston, Me. He is shown with it in Illustration 8. Member Rich reports that it took about 50 hours to construct the plane. Member LESLIE E. MALOON (16) of Buffalo, N. Y., is shown in Illustration 9 with his very finely constructed birdhouse. Another aviation enthusiast is Member ROBERT FASBENDER (14) of Davenport, Iowa, shown in Illustration 10 with three of his planes. They include models of an old-type war plane, a seaplane, and Commander



10: Member Fasbender's project



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## MODERN RADIO

Conducted by Y. C. Lab Councilor J. K. Clapp, S.B., S.M., Radio Engineer

Editor's Note: Conductor Clapp or one of his associates will be glad to answer any of your radio questions. Address him at The Youth's Companion, 8 Arlington Street, Boston, Mass. It will be necessary to disregard inquiries unless accompanied by a stamped, self-addressed envelope

### The Vacuum-Tube Amplifier

*The second of two articles that tell you how it works*

IN the first part of this article we discussed the vacuum tube by itself; we now come to the interesting proposition of associating the vacuum tube with other apparatus in order to make up what we term a "vacuum-tube amplifier," and see if we can find a reasonably straightforward explanation of how it operates.

Let us consider the circuit shown in Fig. 1, representing a "transformer-coupled" amplifier. We do not care particularly whether this amplifier is for audio frequencies or for radio frequencies; the ideas behind it all are the same in the two cases. If we impress an alternating current signal voltage on the terminals of the primary winding P, of the transformer T-1, a reproduction of this signal voltage will appear across the secondary terminals. This repro-

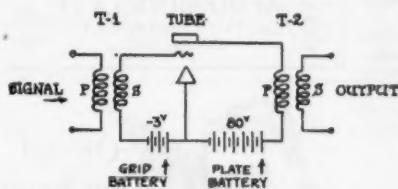


Figure 1: the circuit of a "transformer-coupled" amplifier

duction may be larger or smaller than the original signal voltage, depending upon the design of the transformer. For use in amplifier circuits, the transformers generally step-up the signal voltage, so that we obtain a greater signal voltage across the secondary winding, S, of the transformer. The secondary winding, S, is connected to the grid and filament terminals of the vacuum tube, so that the stepped-up signal voltage is applied to the input circuit of the tube.

The signal voltage now alternately aids and opposes the voltage of the grid (or "C") battery. This is indicated in diagrammatic form in Fig. 2. In this figure, the grid-voltage plate-current characteristic of the vacuum tube is shown for a plate voltage of 80 volts. The "static operating point" is the point on this curve corresponding to the grid voltage of -3 volts, marked Y on the curve. If no signal is applied to the tube, then the plate current represented by the distance AY flows. This is termed the "steady plate current" and is the current which the plate battery is called upon to deliver as long as the tube is in operation—even though no signal is being placed on the amplifier tube.

Now along the -3 volt grid voltage line, XY, let us draw a curve indicating the a-c. signal voltage as delivered to the tube by the transformer, T-1, marking the time upward along the line, starting from the point a. Let the signal increase in the negative direction to point b, where it reaches a maximum. The signal then increases in the positive direction, reaching zero at the point c, but continuing until it reaches a maximum in the positive direction of point d. The signal voltage then increases in the negative direction, to zero at point e, and so on. Two cycles of this wave are shown in the diagram. If the maximum value of the signal voltage were just one volt, then applying the signal voltage is equivalent to rapidly changing the grid voltage of the tube from -4 to -2 volts, in a manner indicated by the curve a, b, c, d, e. The rapidity with which this is done depends upon the frequency of the signal voltage. For a representative audio-frequency signal this might be done at the rate of 1000 times per second. For a radio-frequency signal from a station in the middle of the broadcast band, the rate would be 1000 times faster, or 1,000,000 times per second.

As the grid voltage is varied from -4 to -2 volts, the plate current undergoes a corresponding change, being least when the signal voltage is a maximum in the negative direction and greatest when the signal voltage is a maximum in the positive direction. As the grid voltage goes through the variations shown by the curve a, b, c, d, e, the plate current goes through the corresponding varia-

tions shown by the curve a, b, c, d, e, drawn along YZ.

The steady plate current AY does not produce any voltage across the secondary terminals of the transformer T-2, because the transformer can operate only when the current in the primary winding is changing. The varying plate current represented by the curve a, b, c, d, e, drawn along YZ does produce a voltage across the secondary terminals. In a good amplifier the voltage thus appearing across the secondary winding of T-2, the output terminals of the amplifier stage we have considered, will be a faithful reproduction of the signal voltage applied to the primary of T-1. It will be much larger than the original signal because of the step-up action of the two transformers and the tube.

Now we may consider the steady plate current to be a current of zero frequency; the transformers T-1 and T-2 cannot operate on this frequency, so our amplifier circuit cannot operate to amplify direct-current signals. This is important, for in television reception and transmission direct-current, or zero-frequency, signals must be transmitted and received, if we are to obtain a faithful picture. We must therefore employ some other type of amplifier if we wish to obtain high quality of reproduction in television.

If the transformers cannot operate on zero-frequency, or direct-current, signals, it is reasonable to suppose that they will operate very poorly at very low frequencies, such as 5 to 10 cycles per second. This is true, and even with modern amplifying transformers the response for such low frequencies is very poor. For frequencies of from 25 to 50 cycles per second, however, modern amplifying transformers will give practically their full response, so that on reproduction of voice and music, as in broadcast reception or in talking pictures, very natural reproduction is possible, since the lowest frequencies encountered in such work are about 30 cycles per second.

For reasons which we cannot consider this month, amplifying transformers will again fail

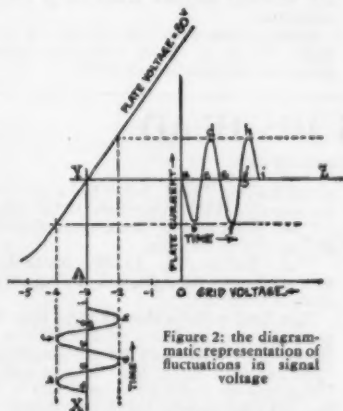


Figure 2: the diagrammatic representation of fluctuations in signal voltage

at very high frequencies—from 5000 to 12,000 cycles per second, depending on the design of the transformer. As long as the transformer operates well at 5000 cycles per second, at least, very little is lost in the quality of broadcast reception, since few broadcast stations are capable of transmitting waves which give reproduced frequencies over 5000 cycles. In fact, under present radio regulations, broadcast stations are not allowed to exceed 5000 cycles for the highest audio frequency which their equipment will transmit. Again, for television work we require very high frequencies, from 10,000 to as high as 50,000 cycles, to be passed through the amplifier. Thus we see that the transformer-coupled amplifier can give only mediocre results with television.

In a later article we will consider the operation of the vacuum tube when it is employed as a detector, in which capacity it serves in one of the most fundamental processes in all radio reception.



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## FAIRCHILD—AIR-MAPPER

(CONTINUED FROM PAGE 247)

an occasion in Milwaukee two Fairchild planes, with wings folded, taxied under their own power from the flying field through city streets to the post office, picked up their mail loads, returned to the field and flew away on their routes. The folding wing also reduced by almost two thirds the hangar space requirements.

Young Fairchild's arrival as a big figure in the aviation industry was as casual as his establishment of the air-mapping industry. When the German flyers landed and were marooned on Greenly Island, two Fairchild planes arrived to carry them to New York. When the big floods swept New England, Fairchild planes spied out the damage. When Lindbergh toured the country in the Spirit of St. Louis, a Fairchild plane followed with Department of Commerce representatives, and dress suits for all. The evening clothes, however, never were packed, but swayed gently on hangars in the passenger compartment between formal functions.

When the Colonel arrived in Mexico City on his good-will tour—which proves to have been a journey also into the realm of romance—his plane needed grooming. But there was a Fairchild ready and waiting on the morning on which the Colonel had an appointment to take the President of Mexico for an aerial joy-ride. And as I sat in the big plant at Farmingdale, Long Island, I was shown a wireless message from Dick Brophy of the Byrd Antarctic party which read:

"Congratulations on your having built the first plane to fly over the Antarctic Continent."

These planes were everywhere because Sherman Fairchild, even now little past thirty, builds more cabin planes than anybody else in the world.

As if this were not enough, I stood beside him at the doorway of his plant the other day and watched the first of his new training model planes being tested by enthusiastic pilots. It is a low-wing plane, small, sturdy, steady, with a high safety factor. It is powered with a Genet, eighty horsepower, air-cooled engine, an English motor which he is beginning to produce in his own plant. It weighs seven hundred and fifty pounds and travels twenty-one miles on a gallon of gas. Its wheels are well forward, and wide-spread, for safety in landing. Young pilots frequently misjudge distances and try to land "below the ground." That bumps, and may nose the plane over. In such circumstances many a beginner has put his face into the instrument board, with painful results. A simple thing is this, but revealing: in his "21" plane Fairchild has removed the instruments to the corners, and directly in front there is a well padded spot against which a student may bump his nose with less damage.

Of these little fellows, ten come off the assembly line each week; five hundred and twenty of them, or about two and a half million dollars' worth, in a year.

Alongside that assembly line there is a double row of "big brothers"—seven-place planes—moving out, two a week, to fly away to far corners of the U. S. A., and beyond. Two million dollars' worth here. And then an intermediate, four-place model; possibly a million dollars' worth of these. And the little acorn to this great oak was that camera which came as a birthday present to a boy in Oneonta, N. Y.

### "The Biggest Young Man"

In New York young Fairchild has an office where he has no desk, but only a flat-top table of oak. There are no papers in the two drawers. There are apt to be some letters, reports and contracts on top of the table, and also a pad of paper. As he talks, telephones, confers, he scrawls on the papers and leaves the pad blank and clean.

Across that table, between phone calls, several months ago, he told me with shining eyes of the latest adventure. They had been experimenting with a new type of pontoon, to be used in converting their ships into seaplanes. It was suggested that the new invention was equally applicable to small boats for use with outboard motors. So a boat was built, the bottom being a series of steps. When not in motion the boat sat down in the water with all the steps covered; but as it gained speed, pushing its nose out of the water, first one step and then another was uncovered, so that finally the boat was speeding with a single narrow portion in the water.

An inexperienced pilot, who did not know his Hudson, drove the boat in the race from Albany to New York. He ran aground a couple of times and handicapped himself in various other ways, and still won the race easily.

The phone began to ring. Orders poured in. The boat had been an idle experiment, but—

"It looks as if we'd have to go into the boat-building business," Fairchild told me, with a wry smile, as if that were another job of work to be avoided if possible.

Well, he is in the boat-building business, and is starting to manufacture several models.

And if that is not enough, during the time this article was in preparation his bare, oaken table saw him very seldom indeed. He was downtown continuously, in conference with bankers and others. When the mystery had cleared away it was announced that a thing called "Aviation Corporation" had been formed with an authorized capitalization of two hundred millions!

Sherman Fairchild was, ostensibly, merely one of many on the board of directors of this biggest giant, but it seems significant that an employee of his became president of the new corporation, and Fairchild directors headed its executive committee.

A few months more will tell more of that story. But he is already easily the biggest young man in the aviation industry.

## SPEED USES HIS HEAD

(CONTINUED FROM PAGE 255)

the room, wholly ignoring the curious stare of Herb Rowe. Then, suddenly, he grabbed his hat and shot out of the door. He was the old Speed again, on the trail of an idea!

Darkness descended over Eden Park, even as it enveloped the rest of the world. The clock on the church tower over on Mount Adams said that it was one minute until ten o'clock. Slugger Joe leaned carelessly against the water tower.

Then two figures walked into the light. One of them was Speed Kane.

Slugger Joe turned to them with a snarl. "So yuh turned yel—"

But Speed didn't seem to hear. Obviously, he had changed his original plan of giving satisfaction to the gentleman of the cauliflower ear. He smiled amiably at the fighter. "Hello, Slugger," he said. Then hurriedly: "I've brought along another man, who has a good job for you. I know you'll like him. This is Mr. Kenwoody, athletic director of the Y. M. C. A."

Mr. Kenwoody held out a gracious hand, and Slugger Joe could do no less than take it, under the circumstances. It gave Speed a chance to continue. "I told Mr. Kenwoody what a fine boxer you are, Joe, and he needs somebody to teach boxing at the Y. M. C. A. Somebody who knows what's what. I told him how you should have been light-weight champion. And he said you were just the fellow he needed. So I knew you wouldn't object if I brought him along."

"Sure," responded Slugger Joe, a bit darkly. Then the light seemed to dawn on him, and a smile broke over his face, making him appear

almost human. "Gee! I ain't had a good job in a long time. I didn't expect nothin' like this."

"Then you'll take it?" asked Speed, showing obvious relief in his voice.

"Yeh. Just my dish. I reckon you've done me a good turn. All right, kid. I c'n see now that you mean well."

Then Speed pulled a sheet of paper from his pocket. He hesitated for a moment, looking at Slugger Joe's bright face for encouragement. "Just one more thing, Joe," he said easily.

"Since you are working for the Y. M. C. A. you will want to make a little contribution to the fund campaign, won't you?"

"Hunh?" asked Slugger Joe. "How much money have I got 't' pay?"

"No money at all. Just sign this paper here. It states that you give permission for that one use of your picture. Of course, we won't use it any more. I've just been telling Mr. Kenwoody what a good scout you are."

And the Slugger signed.

Speed was whistling a merry tune the next morning when Judy McGann happened into the production department. "You're always so happy, Speed. You'd make a wonderful salesman."

"Salesman? Hmph! I could tell these birds around here a heap of things about selling that they don't know."

"Why don't you try it some day?"

"Some day? I reckon I've made some fine sales already. It's simply a matter of using your head. Using your head's better than using your feet."

He might have said fists, and he almost did, but Judy wouldn't have understood.

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## FOUR HUNDRED YEARS TOO LATE

[CONTINUED FROM PAGE 251]

sword flyin' one way and his chapeau the other, and his feet wavin' parabolas in the air.

"Beauty!" yelled the photographer. "I got yer, Admiral! That's what I calls action!"

The Admiral spluttered and picked himself up.

"Caramba! You destroy that film! I do it over again—and this time not so much of the pepper. Already?"

While this was goin' on, my eyes were rovin' around the bleak spot, and beyond a snow-covered cliff I saw a sight which startled me. Smoke!

Well, on the other side of that cliff was a neat little surprise—a regular house nestlin' under the lee side of the hill, smoke comin' out of the chimney. This kind of upset things. You can't very well discover something with people livin' on it.

And there was somebody, too. He came out of the house, all dressed in fur skins. He looked us all over and smiled a welcome.

"Hello, friends!" he said. "My, this is good, to see somebody—after talkin' to myself for ten months."

The Admiral was awful upset. He stared at the man in the furs.

"Tell me, please, may we discover you?" he said. "Don't say you've been discovered already, please, Mister."

"Discovered? Oh, you mean Taffy Island? Golly, this has been discovered several times. By the English three hundred years ago. And then the Dutch. But it belongs to the United States now. I live here alone—guarding the sealing grounds."

WE cruised south again for many days, touched at many points, but luck failed to smile on our worthy enterprise. Around Cape Horn we sailed, always lookin' for some new land, however small. Northwest we plowed on, and the Pacific was a lot more kindly than the grim old Atlantic.

And there one day something real did happen. I got as much of a kick out of it as the Admiral himself, which is sayin' a good deal. I was all by myself in the chart room when, "Land ho!" I heard the lookout sing out, just as he'd done a million times before. But this time it was different. We was in one of the loneliest stretches of the whole Pacific, and there wasn't land that had a right to be anywhere near us any more than you'd expect to find a tributary of the Yangtze flowin' through your own parlor.

I looked sharp, and sure enough there was land—dead ahead, and not more than four or five miles away. I couldn't believe my eyes. As for the Admiral, he was positively ravin'. I kept him quiet as best I could, and went back to the charts. I checked and rechecked our position, till I knew where we was within a quarter of an inch, you might say, and I went over that chart with a microscope huntin' for any markings. Not a one.

"Well, Admiral," I says, "I guess this is where you get your slice of glory, after all. The United States government admits it never did hear of that strip ahead of us, let alone any real estate agents like we've been bumpin' into before. Congratulations."

We lay into it as close as we could. I can't say as how I liked the looks of it, once we got closer. It was so hot that the side planks of the Santa Rosa began to smoke, and the island itself was about the consistency of a hot dishful of Indian puddin'. I knew that it was all right enough.

"It's what they call a volcanic island," I explained to the Admiral. "It seems that there's this under-sea volcano, and every now and again it goes on a rampage and belches up lava and red hot chunks of this and that. Finally all this stuff has cooled off to the point where it only steams like a big puddin'."

Not a single livin' thing was on it, accordin' to a view through the marine glasses. Just cinders, ashes and steam. The whole thing wasn't ten feet above the sea at any point. The southern end seemed cooler and we planned to attack there. Into the boats we piled, camera and music and everything. The Admiral was his gay old self again. His goal was about to be achieved.

But what a spot it was! Just old ashes—and pretty warm all over the place. Instead of ear-laps and icicles, the Admiral was in his shirt sleeves, although he did wear his chapeau and the sword. He planted the flag on a high spot.

"Burns! I take possession of thees island in the name of the United States and New York City, Ward Fifteen! And—I name you—ah—I name you Hot Dog!"

We left in the boats about sundown, after takin' some more pictures. There was no place to sleep on the island, so we had to. The Ad-

miral was very happy. He rode backward all the way to the ship, and standin' up, his eyes just glued on his new island. A very proud man he was.

About midnight I woke up, hearin' hurryin' footsteps and cries. On deck I found the Admiral and several of the sailors. The Admiral was in his pajamas, and a more excited man I never saw.

The whole sea and sky were reddened by streams of lava comin' out of our island. Up in the air it shot, hundreds of feet. Some of the stuff fell too close to the Santa Rosa for comfort.

All night we sat and watched it. The rumblin' and steamin' was awful. Then only steam came; clouds of it that shut out all sight of the island.

The dawn found us starin' out over the steamin' sea. The Admiral was seated against a mast, red-eyed and worried. As the light grew stronger we tried to pierce the steam and fog to see what had happened. Slowly it got clearer, and we could see.

But there wasn't anything to see—nothing but the surface of the water. Hot Dog Island had disappeared!

"What is thees?" cried the Admiral. "My island—gone?"

I felt real sorry and sort of surprised myself. "I guess it has, Admiral," I admitted. "These volcanic islands do that thing sometimes. They're sort of—here today and gone tomorrow."

The Admiral was a stricken man. He turned away.

"I go to bed. I am finish. I have done the best I could. Columbus, Magellan, Pizarro—they never had islands go right out from under them. No! I am verree unlucky man. Set the sail for New York at once, Capitan. I am homesick."

And so I did. I guess that cured Señor Alphonso Lopez Esteban de Callala Fernandez of the explorin' bug. I said good-by to him a few months later when we got home.

"Thank you, Señor el Capitan," he said. "It was not our fault, hah? If you and me had been born four hundred years ago, they'd celebrate October 12th on April 1st—the birthday of Admiral Alphonso Lopez Esteban de Callala Fernandez. Adios, Capitan—and much luck!"

CAPTAIN PEN looked into the distance. "Poor old Al," he said. "It was sort of tough on him to have Hot Dog Island blow up that way just three hours or so after he'd discovered it. Detonate, you might say. I been watchin' the hydrographic charts from time to time since then, to see if any island ever was noticed again in those parts, but I can't see that it ever was. I'd always sort o' thought that if it did I'd tip the Admiral off. He might still be interested."

"Do you still know him, after all that time?" asked Skeet Somerville.

"Know him?" said Captain Pen. "I ran right on him not more'n a year ago, I'd say. Met him in sort of a funny way, too."

The Captain glanced at the cage where Napoleon, the parrot, swung lazily. Napoleon caught the Captain's eye. He blinked and shuddered slightly, but he spoke no word.

"Yessir, a funny way," said Captain Pen. "He's a street-car motorman right in my old home town o' Boston, now. I met him one time when I was travelin' over Dorchester way to see an old friend of mine. Said it was the only way he could satisfy his yearnin' to go on voyages of discovery. Said as how he never traveled the same street twice, though the company always meant him to, and he usually tried to. But sho', there isn't anyone in the country that doesn't know how Boston streets run. You can live there for twenty year an' still get lost goin' to your office in the mornin'. It suited the Admiral fine. Course, now and then a passenger for Chelsea would get a might peevish when he found himself landin' up in the Harvard College yard, and complain to the management. But Al still had a lot o' money. There was real gold braid on his cap an' uniform, and he told me he paid for his own electricity, so the company was glad to have him as a sort of advertisement. He was kind of particular about his passengers, just as he used to be on his elevator, but then those he took a fancy to he didn't charge nothin', so I guess it all worked out all right."

"And happy? He was as happy as a clam. Told me as how a man was foolish not to realize how much explorin' there was to do right in his own back yard, as you might say."

"And he's right at that," added Captain Pen as an after-thought. "How about it, Nappy?" "It's the truth," said Napoleon the parrot, softly.

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## THE BLACK DOGS OF NEWFOUNDLAND

(CONTINUED FROM PAGE 260)

itself was hauled up, torn in several spots, but otherwise intact. Sinkers, buoys and everything else connected with it had been carried away in the rush.

While they were mending the net the unmistakable bark of dogs was heard at a distance in the woods. Hyatt still wanted badly to catch one, and so the net was again stretched across the pool at the mouth of the little river, with long lines for hauling it extending all the way to the schooner. Apparently the beluga had either captured or frightened the salmon away; but Hyatt was of the opinion that the dogs might still return to fish, since they were used to getting their food in that place.

Later in the day this guess was justified. Two black heads were again seen swimming about the pool; and presently another dog appeared, moving to and fro in the shadow of the trees on the river bank, and followed closely by three jet black puppies that looked to be no more than a few days old.

**W**ATCHING a moment when the dogs were diving and on the near side of the net, the young naturalists hauled in vigorously, and at length brought it alongside. One of the dogs escaped and swam ashore; but by good luck the other's frantic efforts to dive beneath the net entangled him in it. Half drowned, the animal was finally drawn up the side of the vessel and secured.

Hyatt had no dog chain or collar for it, but he had prepared in advance a stout line, and had made what answered for a collar from leather cut out of the leg of a high boot. This was attached to the dog's neck and the line made fast to the foremast of the schooner. The net was then removed, while everyone drew back to see what would follow. The instant the captive felt himself free, it tried to leap overboard and struggled so wildly when brought up short by the line that it nearly choked to death. The piercing yells it sent forth were ear-splitting.

Hyatt found it impossible to quiet the fears or the resentment of his captive. The dog paid no attention to the food and water which Hyatt

offered it, baring its teeth and growling fiercely when approached. But Hyatt believed that it would quiet down and become docile after the schooner sailed and the other dogs were no longer within sight or hearing.

The captain had intended to weigh anchor and return to Great Mekkattina Harbor that night; but heavy weather was setting in, the barometer was falling; and Captain Hawkes thought it safer to lay up in Ingornchoix Bay. With the rain and a gale blowing, and the continuous barking of the dogs, aboard and ashore, the young naturalists passed an unpleasant night. Sleep was out of the question. Hyatt had offered his captive a large packing box as shelter from the rain, but the animal disinclined to enter it and stood out at the end of its rope, howling broken-heartedly. What Shaler remarked to Addison, or what Addison said to Shaler that night, is not available for this record. They did not let Hyatt overhear it.

During the morning the schooner dropped down to the entrance of the bay, with the intention of sailing; but such a heavy sea was running outside that Skipper Hawkes would not risk it, and the little craft beat back to its former anchorage off the mouth of the river. Earlier, when they had left, Hyatt's dog had struggled violently as if fully aware that it was being taken away from its home and kindred, and its howls redoubled when the schooner returned.

"Gosh all firelocks!" Uncle Simon, the schooner's cook, muttered. "Ef that was my dog, I'd let him go! I would, I swan!" "Oh, he'll get over it as soon as we are away from here, and he doesn't hear the others calling him," said Hyatt. "He won't mind as soon as his appetite returns and he begins to eat." Hyatt was bent on taking back a native, wild Newfoundland dog to Cambridge with him.

It rained steadily, and the day passed with no further incident than the continued moaning and grieving of Hyatt's captive. It had ceased to bark, but whined dismally in response to the barking of the dogs ashore. Nothing could be

done to console him; even the offer of a juicy piece of caribou venison failed to interest him.

**S**OMETHING never fully explained happened shortly after twelve o'clock that night. Everyone claimed to have been asleep when it occurred. A splash alongside waked Skipper Hawkes. At least that was what he asserted. That, too, was what Shaler and Uncle Simon affirmed. No one was on deck at the time. The skipper was the first up, and at once shouted down to Hyatt that his dog was gone. They all came up hastily. There lay the wet end of the captive's rope; and a critical inspection of it roused Hyatt's suspicion.

"That rope was cut!" he cried angrily. "No; but the dog probably gnawed it off!" Shaler argued.

"I don't believe that," Hyatt retorted. "Some of you did it! A pretty trick after all the trouble we took to capture the animal!"

They attempted to convince Hyatt that the dog had gnawed the rope. "Those dogs have sharp teeth," Shaler declared. But Hyatt continued to mistrust them. An outburst of defiant barks from the darkness ashore added to his indignation, but he did not quite know whom to suspect—whether his two fellow students or Uncle Simon and the skipper. Nor did he ever find out certainly whether the rope had been cut, or the dog had gnawed it apart.

Once, a few days later, Hyatt looked Shaler in the eye and asked him point blank if Addison had done it.

"Well, I haven't heard Addison deny it," Shaler replied enigmatically.

Years afterward, while visiting Addison at Yale University, Hyatt suddenly demanded, "Ad, was it Shaler who loosed my dog up there at Newfoundland that night?" And Addison's equally enigmatical answer was, "I never heard Shaler deny it."

No more do I know how the animal escaped; but for my own part I have always felt glad that the poor creature got away. Even a wild dog has certain rights of which no one ought ever to deprive him without good cause, and among these are life, liberty and the pursuit of happiness.

## LOOK IN THE ATTIC!

(CONTINUED FROM PAGE 257)

for something like this. Certainly it was quaint enough, and well preserved, too, despite its time-stained title page.

As Joan went by the Inn, Mr. Watson hailed her.

"Ha, books," he cried, and came to meet her. "Just Godeys. You don't go in for them, I'm afraid," Joan warned him.

"Nothing else? That's disappointing. Not much hard cash value in those. I'm surprised you didn't unearth an old Bible, or something, at least."

"Well, there was a book, too. Just a little one. Book of poems, published in 1827."

Mr. Watson looked hard at Joan. "In 1827? Those poems were they?"

Joan fumbled for the volume, among the pile of Godeys. "That's what's so funny," she said. "It doesn't give the author's name. It just says, 'By a Bostonian,' and of course—"

"What?" Mr. Watson had grown suddenly pale, and his hands shook, as he reached for the slim volume that Joan held out.

"Of course I know it was Edgar Allan Poe that wrote Tamerlane," went on Joan, not quite recognizing what appeared to be the imminent collapse of Mr. Watson, "but I should think—"

"Put down those silly magazines and let—me—see—that—book!" Mr. Watson's manners had gone the way of his composure. He snatched the volume from Joan's hands and together they looked at the brown, brittle, title page. It said:

### Tamerlane

And Other Poems

By a Bostonian

"Young heads are giddy  
and young hearts are warm  
And make mistakes for mambos  
to reform."

—Cowper.

Boston—Calvin F. S. Thomas—1827  
Washington and State Streets.

Wordlessly, Mr. Watson stared at it. Wordlessly, he turned the pages, one by one. Then he took out his handkerchief and mopped his brow. Then he turned to Joan again.

"My dear Joan Jordan," he said quietly, "do you realize that what you have just carried

down the hill is the full equivalent of ten thousand dollars?"

Joan walked over to the Inn steps and sat down. "That can't be right," she said in a small voice. "Probably there is some—mistake."

"Might be," Mr. Watson agreed, "but I doubt it. This is a first edition of the first book Poe ever wrote, you know. There are only five of them in the whole world. And this one seems perfect, except for a tear on the printer's advertising page in the back. Why, even the British Museum copy hasn't got these wrappers, and the four biggest libraries in this country haven't even got a copy at all!"

Gradually as the excitement abated it was agreed that the Watsons, who were driving to Boston that evening, would take the priceless treasure with them and consult the dealers.

Remembering what she had heard about Mrs. Appleton's acute anxieties, Betty Wales Watson telegraphed the result of the inquiry: "Congratulations. Book genuine. Great excitement among big collectors."

**J**OAN, raced up the hill with the wonderful news; she hadn't said anything before, for fear of a later disappointment. Mrs. Appleton listened intently.

"Well," she decided slowly. "You sell it, and I'll ask Steve Adams to invest the money—It'll pay my taxes regular, and interest on the mortgage, and a lot more. Course I hate to let the book go—must have been my husband's, handed down mebbe. The Appletons were all great hands for poetry. Wisht I hadn't burnt up another pile of his books." She laughed merrily. "Here I'm mourning the past, when I ought to be on the top of a wave of joy. Why, you're a regular wonder-worker, Joan, to find me all that money. I—I just can't realize it!"

There were footsteps on the porch: the widow Cross again. "Mornin', 'Lecta," she said shortly. "Mornin', Joan. You're a reg'lar caller up this way lately."

"Oh, Mary!" Mrs. Appleton was too happy to resent neighborly curiosity. "Think what Joan's found for me: a little poetry book—must have been my husband's—worth thousands of dollars—ten thousand anyhow, they think."

"Honest!" exclaimed the awe-struck caller. She turned to Joan. "Where'd you find it?" Joan explained, mentioning, by unhappy

chance, her having laid the magazines down on the sitting-room table.

The widow Cross looked hard at Joan and then at Electa Appleton. "That book's mine," she announced. "I missed it, and I'm here to get it. Oh, I don't mean my 'Lamp-lighter.' I mean my little poetry book that I used as a bookmarker. I musta left it in there, and when you took off 'Lecta's Godeys you mixed it in with 'em."

Horror-struck, Joan appealed to Mrs. Appleton. "Did you find any such thing in the story-book she lent you?"

"No, but of course I've only read a little ways yet," admitted honest Mrs. Appleton.

Joan picked up "The Lamp-lighter," which, as she well remembered, had been on the table when she laid the Godeys there. There was no little poetry book between its pages.

"What did your little book-marker look like?" she demanded sternly of Mrs. Cross. "And what was the name of it?"

"Don't remember the name," announced Mrs. Cross airily. "It was a little small book, like you said, with no rightful covers—"

"What color were they, such as they were?" demanded Joan.

"Sort of soiled—blue, I think," ventured the widow Cross, then added warily, "My eyes are poor for colors. Mebbe 'twasn't blue. And the poetry was fine poetry—all about love and heroes and such. Ought to be worth a lot. But it's mine, that book is, and I want it back."

Mrs. Appleton rose from her chair. She was a little woman, but rage turned her tall and terrible. "Mary Cross," she said, "take your 'Lamp-lighter' and go home. And don't come back. My book is in Boston, and it's going to stay there, until you can legally prove your claim that I'm the thief."

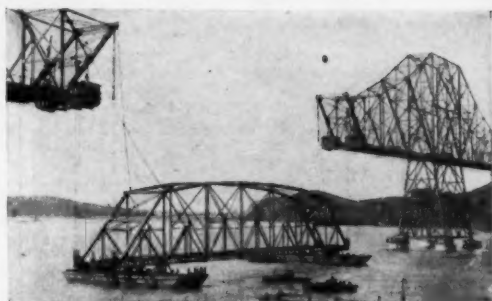
When she had gone, in frightened silence Mrs. Appleton sank exhausted into her chair. "Joan Jordan," she said, "I never saw that book. I couldn't say how big it was or what color, or what's in it. All I know is there was a pile of such little books upstairs, and I burnt up most of 'em."

"I'm almost sure it didn't fall out from the bottom of the pile," said Joan. "Oh, if only I could be quite sure!"

Solemnly the two faced each other. Finally Mrs. Appleton broke the silence. "Poor Mary Cross! She's as old and as hard up as I am. We'll divide with her, Joan." She gave a happy little chuckle. "I guess the nicest thing about this is that once before I die I can afford to be real generous."

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These photographs, taken 1 hour and 25 minutes apart, show you how a great bridge span (in this case a span of the cantilever bridge across the Carquinez Straits, San Francisco, Calif.) is raised into place



In the first picture you see it being floated into position on huge barges. Heavy counter-weights filled with sand are then released, and with the aid of steam winches the span is lifted into place. The Carquinez Straits bridge is one of the largest ever built

Federal Building in Chicago sank considerably and caused great apprehension among builders and engineers. That started an investigation from which developed a wholly new and modern method of foundation building. Nowadays foundations are placed under the foot of each column in the building, each one independent of the others. These columns are carried down into the ground until they reach a safe foundation. In some places, like New Orleans, it is necessary to sink piles until they strike a bottom solid enough to carry the weight, or to a depth which will afford a skin friction sufficient to support the building. By some means or other a perfectly safe and solid bottom must always be provided.

With elevators, foundations, and the new structural steel, the time was ripe for the first true skyscraper. The Home Insurance Company, in 1883, put up a building in Chicago in which were used, for the first time, some of the skyscraper principles—principally that of supporting the entire weight of the walls on a steel framework, instead of making the walls themselves carry the weight of the building. The 14-story Tacoma Building in Chicago, erected in 1887, carried skyscraper principles still further, and is generally known as the first real skyscraper. The Tacoma Building was supported entirely by a metal frame, and the walls did no more than curtain off the interior and protect it from the elements. So sound was its design that it is still standing, although the owners, the University of Chicago, plan to demolish it shortly to make way for a 24-story building with a 23-story tower.

To build higher and to build larger was only a matter of further experimentation, for engineers realized that in steel they had a material upon which they could depend absolutely. Accessories, of course, had to be improved, particularly the elevator. After Tufts' vertical screw railway type came the hydraulic plunger and later the electric elevator. Electric elevators have been developed to move at the astonishing speed of 1,000 feet a minute, with an acceleration so accurately controlled that passengers are hardly conscious of the rate at which they are traveling. No building is yet equipped with elevators as rapid, but those in the towering new 68-story Chrysler Building now being erected in New York will move at the rate of 900 feet a minute.

### Engineering Achievement

From the Tacoma Building to the Chrysler Building is a great step. From Roebbing's Brooklyn Bridge, built forty-six years ago, to Amman's new Hudson River Bridge is as great a step. In between there has been a vast amount of chemical research and development in steel, and the accumulation of a storehouse of engineering knowledge about steel structures. We may speak of architects achieving wonders, but American architecture is daily becoming more dependent upon the engineer. The skyscraper is an engineering achievement, and the architect can do no more than content himself with the lines that steel construction offers him.

Within the past year or two, notable engineering construction authorities of many European countries have given special study to the American skyscraper. They now acknowledge that it is the sole important contribution to architecture since the Renaissance. They are ready to copy it, and have even offered special inducements to American engineers to go abroad and teach them the art of fabricating structural steel as we do it in this country.

Fabricators believe that only a start has been made at solving the engineering problems involved in steel construction. One of them is a more rational basis of design for wind pressure, a problem on which the meteorologist is being called into consultation. The engineer, with the assistance of the geologist, has greatly advanced the design of foundations. The metallurgist has aided in the development of the

## TOWERING STEEL

(CONTINUED FROM PAGE 253)

steel itself and its system of inspection, and is now busy in the development of flame cutting, and field and shop welding.

### Building Largely

We are on the verge of seeing buildings erected larger than any hitherto conceived; buildings which may upset all our preconceived ideas. One of the most unusual and important developments has been in the sale of "air rights" in large cities. The late Ira A. Place, general counsel for the Grand Central Terminal development, is generally credited with being the first to realize their value. The Grand Central Terminal Company in New York found itself with many city blocks on its hands that had been cut into for subtracks for its trains. These had been blasted out of the solid rock, leaving a clear space above which apparently had no value. Then the idea was conceived of selling the right to build above these tracks without selling the ground itself. The Hotel Biltmore was the first to purchase air rights, paying \$100,000 a year for them. That price advanced rapidly, and when the Hotel Roosevelt was built, air rights cost the owners \$285,000 a year. The new New York Central Building occupies the last available air right parcel.

All these buildings built above the tracks are supported on steel stilts which carry the weight of the buildings down to the bed rock below the tracks. Streets and sidewalks rest directly on the railroad structure, and to avoid vibration are separated from the walls of the building by a slot. The stilts themselves rest on lead and asbestos cushions, so that there is practically no transmission of vibrations caused by the trains.

These buildings have no basements. One of them, the New York Central Building, has provided a basement on the fifteenth floor, in which all the necessary machinery is placed. Heat is purchased from the Terminal Company.

What New York has done is being repeated in Chicago. Over the Illinois Central tracks it is planned to erect a building with 1,500,000 square feet of floor space, the Merchandise Mart. Plans have been drawn for another building, seventy-five stories high, to be erected over those same tracks.

Great buildings have become a necessity today. Even Boston has lifted the ban on skyscrapers to permit a more economical development of the city. In New York, the New York Life Insurance Building, spreading over an entire city block, has taken the place of the old Madison Square Garden. The Waldorf-Astoria Hotel is to make way for a similar gigantic structure, while a new Waldorf-Astoria, forty stories high, will be erected on Park Avenue. A 60-story hotel is planned for Columbus Circle. And there is still on the boards the plans for the Larkin Building, which would rise to the stupendous height of 110 stories—a building a quarter of a mile high. From an engineering point of view, these tremendous structures are entirely feasible. The economic side, however, is another question. Some of the most experienced real-estate operators believe that eighty-five stories is as high as a building can go today, and still pay a return on the investment.

### What of the Future?

Engineers and fabricators intend to keep ahead of the purely economic problems. When capitalists are ready to order taller buildings, they

Watch the June issue for announcement of the winners of the Colleen Moore and Lon Chaney contests

will be ready to construct them. The engineering staff of the American Institute of Steel Construction is now engaged in developing what is known as the battleship-deck floors. These floors will be simply steel plates welded directly over the beams and girders of the frame. They will greatly reduce the floor weight, and so the construction cost. Because they will mean a cheaper, more rigid structure, still higher buildings will be possible. Before they are adopted, however, the tests which are now being conducted for strength, sound transmission and fireproofing must be completed. There will be a certain amount of prejudice against this new floor construction, but its possibilities, once adopted, would be unlimited. It could, for instance, be easily adapted to road and bridge building. A steel floor for road work, carried on I beams sunk in asphalt-treated gravel, would be very nearly everlasting.

As a matter of fact, such a steel road has been carefully investigated, and I am assured that it is now being tested under the most rigid conditions, before being offered for general use. I mention the steel road merely as an instance of the rapid strides that steel construction is making. Only a person who has worked long with steel is conscious of its infinite possibilities.

When DeLesseps, the great French engineer, planned the Panama Canal, he decided on one without locks, cut through at sea level. One of his principal reasons for this decision was his inability to find the material from which lock gates sufficiently large and strong could be constructed. That problem he could not solve, and his canal company failed. American engineers found that locks of the required type could be built of steel, and the lock gates at the Panama Canal stand now as evidence of the power of that metal.

These gates are really steel dams. They prove that it is possible to construct dams of steel and do it more satisfactorily and more cheaply than it could be done with any other material. With steel we could safely build irrigation dams to many times the height of any known today.

You will understand now what I mean when I tell you that the greatest of futures is open to the engineer who specializes in steel construction. He will have use, not only for his own skill, but for that of scientists in many other fields. We have already utilized the service of the metallurgist, the meteorologist, the geologist, the electrician, and the sanitary engineer. Skyscrapers have used all the arts of sanitation. Their heating is the most uniform ever known. They have proved that artificial light can be made to serve as well, or even better, than natural light. At heights above three hundred feet, flies and insects will not live; noise and dust will not penetrate.

We have already accomplished what seemed impossible only a few years ago, but the possibilities of the future remain as great again. Two years ago the first residence was erected with steel framing. Since then, four companies have been organized to manufacture steel house framing, and many companies organized to build the houses themselves. A house with a steel frame is stronger, more fireproof, and cleaner than one built of brick or wood. And if steel construction has developed a new and inspiring type of architecture in our office buildings, it is far from an idle prediction to say that it will do the same for our homes. Steel construction, growing with the growth of a great country, will leave its impress, not alone on the buildings of our cities and on great bridges, but throughout the countryside, wherever a home is built.

In the comparatively few years since steel was first made a commercial possibility, it has revolutionized our civilization. Great as its achievements have been in the past, even greater possibilities await us in the not far distant future. I feel that what steel has done in the past will be little compared to what it will do in the coming years.

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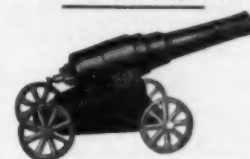
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The engine of the plane was shut off, and it began a long, circling, downward glide. [PAGE 291]

had slipped through their fingers, the adventure seemed to have gone rather flat.

Of course, there were still the diamonds! Fancy forgetting them! The thing to do now would be to go back to 48 Rue du Cheval and see if the police there had found any trace of the gems. They went—and found no trace of the police! The house was calm and frigid as ever, still without and within, and not even the Walloon serving girl was there to tell of what had happened recently.

"I return to headquarters," said the police captain firmly. "I shall report. The motorcycle is yours, Monsieur, till Mopsieur has no more the need." He saluted and popped purposefully away.

"Nothing for us to do," said the consul in a disappointed voice, "but to go home and wait. It's his job to order the trains watched. The United States can't meddle in that."

"And you're going to greet the Mangosteens with arrest?" Rod asked.

"Yes—we must find where she's bound. That will give us something to do."

Rodney fell silent, thinking of Victory. Rough on her, that. It was no fault of hers. She'd been loyal to that wretch of a father in a fine way—and then, when it came to choosing right or absolute wrong, she had played square and straight with Rod, though she suffered for

## LUBBER'S LUCK

[CONTINUED FROM PAGE 259]

it. And he had never had a decent chance to thank her for everything she'd done, and say good-by and good luck. Why, she might even think, still, that he was against her. And when the ship was seized—would she believe that his treachery had betrayed her? In giving him that information about the diamonds, in setting him free to begin with, she must have known that she was putting in motion forces that would lead her father into difficulties. Rod scowled over the situation.

At the consulate, the office telephone was ringing and ringing. The secretary was hurrying to answer it, when the consul himself strode in and took up the instrument. His face was a study throughout the hasty conversation in French. He wheeled to Rod as he returned the receiver.

### CHAPTER TEN

#### The Hawk Stoops

AN army plane has been stolen from the flying-field!" the consul cried. "They thought it was an official party, because the men arrived in the consulate car! Imagine,

coolly driving in and hopping off under their very eyes! By this time our crooks are well on their way—and quite above such things as watched trains and roads, confound them!"

Rod didn't quite understand at first why he should be sent on the expedition that followed in breathless succession. The consul explained to him, on the dash to the flying-field, that it was in order that he might identify Crowder, should they have the good fortune to pick up the escaping plane. They were flying, when last seen, toward the German border, said the aviators at the hangar. A big plane was being trundled out, looking like a giant moth emerging from a chrysalis. A helmet and goggles were clapped over Rod's head; he was being propelled toward the plane. He was going to fly—something he had never expected to do! The excitement of one experience was swallowed by the thrill of the next. Rod was beset by so many sensations and emotions that he could scarcely realize any of them. He and a pilot and an officer of police were the only occupants of the plane, with room to spare.

"No," said the consul, "no need for me. I'd only take up precious space that I hope you'll need for those two. I'll get back to headquarters and find out what's happened at Rue du Cheval."



The outbursting roar of the motors drowned his last words—an overwhelming roar that filled Rod's head till he thought it would burst. The thing was rushing across the landing-field, jolting and bounding, faster, faster; the pilot did something to the controls, and the engine noise increased to an unbelievable screaming bellow; there was a strange mounting sensation—a lift and a lightness. Could it be that they were in the air? Rod cautiously put one eye over the fuselage and beheld, far below, the checkered pattern of the earth, the tops of the hangars like outspread handkerchiefs, the planes like dragonflies, the consul's departing car a tiny ant—already they had risen so far! Something gripped Rod's throat; not fear—rather a sort of incredulous exaltation. He felt like a liberated spirit, if only it wasn't for that infernal roaring! He tried to yell something to one of his companions and could not even hear his own voice as it left his throat. He felt as though he had suddenly been stricken dumb. He relapsed into an awed silence.

The plane circled above the field, then streamed away in the direction the fugitives had taken. Far below, Antwerp looked like a plaster model of a city; the Scheldt lay like a flat curve of silver ribbon slung down on the land. Rod, spellbound by the exhilaration of flight, almost forgot their errand. The police officer was alert and anxious; sometimes he scanned air and earth with a pair of binoculars. Like looking for a penny in the sea, Rod thought, to attempt finding the escaping plane in the air of all the world. How could they hope to overtake it—it was a lighter plane, and had something of a start.

Rod determined to let no worry over the pursuit spoil his keen joy in this experience of flying. He peered down at the far-flung countryside with its patchwork fields and ribbon roads, its white canals and purpling cloud-shadows. Oh, strange, to be floating clear of the round ball of the world—a little gnat poised in space! The pilot was flying great zigzags, now, combing over this part of the land in wide loops and curves. Rod looked at his companions with questioning eyes, and the police official scribbled on the leaf of a note-book in very odd English, "To late if they are cross in to Germany," by which Rod understood that they must have come near the border now, and that the extradition laws would protect the fugitives had they already entered Germany. He crumpled the paper and dropped it over the edge of the fuselage, turning to see it whistle wildly behind in the blast of wind. Then, far below, motionless in the level green expanse of a great meadow, Rod saw something that made him grasp the officer's arm and point wildly downward. The gray, outspread wings of a moth! An airplane at rest on the earth like a dragonfly that pauses on the stem of a plant! The officer craned over to look—then shook the pilot's shoulder, pointing, too. Suddenly the engine of the plane was shut off, and it began a long, circling, downward glide—the most glorious motion Rod had ever dreamed of. Free of the noise now—the tormenting noise—silence rushed in. It seemed like a solid presence all around them, pure and clear. The flight was like that of a bird, a spirit; Rod wished it would keep on forever. But the plane was gliding now above the one on the earth. Two startled faces looked up to see the great hawk stooping close over them.

"Leroup!" said the police officer in a low voice. He was training the plane's machine-gun threateningly on the pair.

"Crowder and Hubbard!" said Rod, breathless.

The pilot circled and made a beautiful landing, taxied up beside the other plane. The hands of the fugitives, held above their heads, contained monkey-wrenches and pliers. It seemed that they were down with engine trouble. Rod couldn't help grinning as he clambered out after the police officer, who was covering the two with a pair of revolvers.

"Seems to me," he said, "that we've met before under circumstances like these. Can I help any? Is 'she' waiting for you this time? There's a garage a couple of miles down the road—or will you wait for Newt Saunders?"

The men were white and shaking with rage. Hubbard—or Leroup—made a motion to dash his wrench at Rod, but the pilot sprang forward and relieved the men not only of the tools but of the revolvers in their pockets. French and English oaths and orders scattered the air like machine-gun bullets. But resistance was impossible now.

"You win," said Hubbard harshly, looking with blazing eyes at Rod. He burst forth suddenly in a screaming torrent of words. "What sort of a jinx are you, anyway? First our car, then the Miraflores running aground at Kip's

Arm—now this. A few more kilometres, and we'd have been out of the country. Scotland Yard's easier to beat than you are!" A sort of grin just gleamed into his furious face. "At least I hand it to you, kid—you ought to go into the business."

Then he turned and began his tirade again to the officer, in French, which he seemed to speak quite as well as his Americanese. Crowder, as usual, was more subdued than his partner. He climbed hurriedly into the cockpit of the big plane with no urging, while Hubbard required prodding with the muzzle of a revolver.

Rod was glad that no conversation was possible after they were in the air. He had never before heard such cold hatred and bitterness as there had been in Hubbard's tone; to have flown all the way back to Antwerp lashed by it would have been most uncomfortable. The officer kept one man covered with a revolver; Rodney the other. He had rarely handled a gun; he had never before trained one upon a human being. The sensation was not at all pleasant, though undeniably exciting. The return flight seemed endless, the

heap of flashing facets, prisms that gleamed and changed and sparkled and burned as nothing but a diamond can; pendants, rings, brooches, bracelets, unset stones—a fairy tale treasure, flashing dramatically on the drab police-office table.

"The sparklers!" cried Rod, awed. "Is this the first time you have ever seen them?" Mr. Marquier asked.

Rodney nodded. "No wonder they're worth all this fuss," he said. "But where did you find them?"

"48 Rue du Cheval," the consul said. "So you really had no idea what you were risking your neck for?"

"Why—I never really thought particularly about the diamonds themselves," Rod owned. "I just kept thinking how rotten it was that anybody should get away with anything so wrong as stealing them."

"You stuck to a very difficult job," said Mr. Marquier. "Your position—your handling of it—was unique! I consider that the entire credit for the recovery of the stones and the arrest of Leroup belongs to you." He offered Rodney his hand, in a quick, forceful grip.

"It's mighty good of you to feel that way," Rod said. "There were times when I felt like an awful fool, and other times when I was mad, and sick, and just plain discouraged." He looked again at the diamonds. "Well, it seems queer to think that it's all over. It was one of those things that seem to go on forever." He turned to the consul. "I suppose you can fix me up some papers, sir, so I can get home. And—er—I hate to ask you, but, if you could lend me just enough to get back on, I'll pay you as soon as I possibly can. You see, I only had five dollars when I left Porthaven, and I gave most of that to the old boy that got me away from Kip's Arm."

The consul stroked his chin. "I'll attend to your papers, all right—never fear," he said. "But I believe Mr. Marquier can spare more money than I can."

The diamond merchant coughed and tugged at his small moustache. "It is a tremendous pleasure to me—to the firm I represent," he said. "I don't know when I have ever heard of a reward being more strenuously earned, more justly deserved. You see—the diamonds are worth quite a million. There is also a large reward offered for the arrest of Leroup on other charges. So that in all you will receive approximately fifty thousand."

"Fifty thousand?" Rod repeated dully. "Fifty thousand francs? Glory—why, that's a fortune in United States money, even with this exchange! Mr. Marquier—I can't—"

"No, no," the men said together, "fifty thousand dollars!" "I can't possibly—" Rod said, through dry lips. "I can't."

The consul put a hand on his shoulder. "Think of your mother, Granger," he said.

Rod did think of her, suddenly. From some life a thousand years ago, he remembered the last farewell, before he ran off to see the Miraflores. And he wondered if his letter had reached her yet, from Kip's Arm. He started up suddenly, with a strange expression.

"If—if all this is true," he said, "I—why—I can cable her, can't I? Could you lend me a few dollars, so I can?"

The two men watched his flying form, rushing off to write his cable, and they looked at each other with a glance of mingled amusement and tenderness.

"Restores one's faith in humanity, eh?" said the consul.

Mr. Marquier said nothing, but a whimsical and profound smile lighted his keen face as he quietly opened the case that was to carry the diamonds back to New York.

## CHAPTER ELEVEN

### Lubber's Luck

Rod was "seeing Antwerp" now, with a vengeance. He was to sail before long, as Mr. Marquier's guest—first-class on a big liner. He had stoutly resisted all suggestions that he stay and see a bit of Europe while he was about it. He had been away entirely too long, as it was, he said, and his one idea was to get home as fast as possible. But he did take advantage of the few days before sailing time to walk at leisure through the streets where he had lately hurried penniless and hungry and very ill at ease. Now, dressed in a better suit of clothes than he had ever possessed in his life, and with the last vestige of coal-dust and grime removed, he would scarcely have been recognized as the dirty, wild-eyed stoker of a few days ago. The fifty thousand dollars was [CONTINUED ON PAGE 295]

## RANDOLPH SECRET AGENT

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By

KEITH KINGSBURY

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scream of the motor unbearable. Rod's head was bursting with it when at last the plane made its quiet landing; he could scarcely hear small sounds, at first.

To be on the safe side, a police car was waiting for them at the hangar. No chance of a slip-up this time! At headquarters, to his great relief, Rod found the consul. He seemed so sure, so familiar, so American, in the uncertain and bewildering tangle existence had become. With him, besides several officials, was a small, slight man, with carefully parted iron-gray hair, and a dark moustache accentuating a pale, discriminating face.

"Here's the boy, now," the consul cried. "Granger, this is Mr. Marquier, the owner of the diamonds. He's just landed. He's as anxious to see you as I was to see you back. What luck?"

"By the way," Rod said, "what about the diamonds? Crowder and Hubbard haven't been searched yet."

"You overtook them—you have them?" the men cried together.

"They're in the next room," Rod grinned. "That is, I hope they are. I shan't believe we really have them till I see them locked up."

"That pilot must have done some real flying!" the consul remarked. "It was a very slim chance, I thought, when you started off."

"Well, they were down with engine trouble," Rod admitted. "That's when I always seem to come up against them. But the diamonds? We aren't any nearer those than ever, are we—doggone it?"

"My dear boy," said Mr. Marquier, speaking for the first time, "I have heard the whole story, while you were flying after Leroup. It is so nearly unbelievable that I should find it very difficult to credit, if it weren't for these."

He drew back a cloth that covered something on the table—and then Rod flung a hand before his eyes, bedazzled and amazed. For, full in the golden splendor of the setting sun that streamed in through the western windows, lay a rainbow



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## Taking Pictures This Summer

*This interview with Clara Sipprell gives you valuable hints*

WHEN people see her pictures in New York and London and Paris, when they go to her exhibitions in Washington and hear that the President's wife has sent for her to make a portrait, they wonder what Clara Sipprell is like. Looking at the beautiful pictures she has made, they feel sure there is white in her hair, for surely such skill is not quickly and easily acquired.

It is not acquired quickly. Nor is it acquired easily. But Clara Sipprell is not old. The brown hair in its swirl on the head that is always finely erect shows no white. Her brown eyes flash as eagerly as any girl's when you meet her, especially if you talk with her about pictures.

When Clara Sipprell first became interested in taking pictures, back in Buffalo where she lived as a young girl, she had one great advantage—her brother was a photographer. She could go into his studio whenever she wished; she could watch him at his work; she could ask him whatever question came into her head; and she could experiment to her heart's content. Later, she went from Buffalo to New York City, where she felt she would have a wider field for her photography. But she will never cease to be grateful for those days in her brother's studio, when he was never too busy to answer her questions or make suggestions for what she was doing.

When I told Clara Sipprell that the Members of the G. Y. C. wished to have suggestions for their own picture-taking this summer—for many of you have written in asking for them—she leaned back in the big chair beside her studio window and looked off across the roofs and the elevated tracks and the rushing cars of New York City. There are tables and chairs and divans in Clara Sipprell's studio. Whichever way you glance, you see beautiful things, beautifully arranged. Yet the whole effect is one of openness. And her photographs, lining one end of the studio, many of them of Vermont and old French Canada, belong with the openness and the loveliness.

### Records and Pictures

But Clara Sipprell was speaking: "I think one of the first things any girl interested in taking pictures should realize is the difference between a record and a picture. Records are made when a crowd of friends are off together on a picnic, or when the puppy is snapped in the back yard, the chief idea being to get him when he isn't moving. The skill you need to obtain a good record is accuracy of direction, care in exposure and developing.

"But to take a lovely picture, much more

must be called upon. You must find your picture. You must watch it in many lights, deciding upon the time of day which has in it the special magic you wish to catch. You must know your camera and its timing. You cannot do it hastily. But in the end you will have a picture. If this is the kind of picture-taking which interests you—and I hope that it is—you have fascinating experiences before you.

"I remember that when my brother gave me my first kodak I was so madly enthusiastic that I took everything. I took pictures so fast, they got on top of one another on the films. I took people and houses and country scenes—everything. After a while, however, I realized I wasn't getting anywhere with my pictures except in numbers. That was the time I began to be critical of what I was doing. It was the beginning of my work as a photographer.

### Don't Attempt Too Much

"And so, if you are interested in making lovely pictures, I would suggest that you start quite simply. Don't attempt too much. Select some one stationary object outdoors which you already love, and study it. Perhaps it will be a tree in your yard. Watch this tree in many lights. See how it looks in the early morning light, when there is a pulsating quality in the

"You may do the same thing. Or you may try another kind of experimenting which artists also use, and that is to cut from pasteboard a pasteboard frame, taking it out with you on your hikes and holding it against the landscape or a near-by clump of trees or anything which you think would make an interesting and delightful picture.

"Have you heard people on the top of a hill exclaim, 'Wouldn't this make a marvelous pic-



Clara Sipprell

*One of Miss Sipprell's lovely prints. It was selected as one of the best prints of the past year, and has been sent to London for an International Exhibition there*



Warren Boyer

*Here is a fine combination of a record and a picture*

air. Look at it in the noonday glare, when the lines of it will be firm and hard. See what the magic of late afternoon does to it.

"The advantage of selecting a stationary outdoor object for your experimenting is that it is always there waiting for you, and you can see the light on it at any time of day. And to me a realization of what light does is the most important step in photography.

### Look for Pictures Everywhere

"But look for pictures wherever you go and at all times, and make them for yourself whether you have your kodak or not. Perhaps you are surprised that I use the word make, and yet that is what the photographer does as much as the painter.

"Have you ever seen an artist hold up his hand against a landscape, with his thumb and forefinger crooked into a frame with which he tries out this part of the landscape, and that before his eyes? He is making pictures—that is, he is selecting from all that he sees that which he thinks may make a lovely painting.

ture? Perhaps, even, someone has had a kodak along and has taken the picture. But when it was developed, somehow you were disappointed in it. When you looked at it you didn't get the feeling you did that day on the hill.

"But why not? It is more than likely that in the composition of the disappointing picture there was nothing whatever to give you a sense of scale. A tree in the foreground would have helped to give you the feeling of expanse and space beyond. This is a point to remember when you are making your pictures.

"For myself, I have no definite rules for the composition of a picture. I believe one of the best ways to learn what makes a good picture is to study those pictures given us by the 'great artists of the world. Don't be afraid of your own taste even with them. Some you will like, others you will not. Look at them in detail and try to make up your mind why some appeal to you and why others do not. That why is important, because it is through it that you will work out what you wish to have in your own pictures.

"Do not be discouraged if you cannot afford this or that equipment. Make the most of what you have. By doing so you will acquire an ingenuity which will always stand you in good stead. After all, there is nothing which you can do this summer which will be more valuable to you than experimenting in the making of pictures from the point of view of finding them in what is around you. No matter what equipment you may later have, you will never be able to take better and lovelier pictures than what you yourself can select."

HELEN FERRIS

*You will find more of the story of how Clara Sipprell became a famous photographer in Helen Ferris's book, "Girls Who Did," published by E. P. Dutton. It is a truly exciting story and a truly exciting book.*

HAZEL GREY

### The Treasure Chest Winner

#### And some Honorable Mentions

I HAVE been saving a very important announcement until this month, because I know this is the time when you are beginning to think about getting your next Treasure Chest reports ready to send in, and you will want to know just why Dorothy Pierce's record won first place in our last contest. Those of you who have been Members of the G. Y. C. for some time know that the Treasure Chest is one of our high honors, awarded twice a year for the best record submitted by an Active Member of the money she has earned and saved during a six months' period. The record for the first six months of every year, January to June inclusive, is due in this office by July 15.

#### The Winner

Miss Teresa Fitzpatrick, our business adviser, has awarded first place in our last Treasure Chest contest to Dorothy Pierce (13) of Baraboo, Wis. The achievements which Dorothy submitted as her qualifications for Active Membership in the G. Y. C. were writing and swimming. In writing, Dorothy wrote a prize-winning story in a school contest. And she taught herself to swim.

Many of you asked me to tell you how to keep your Treasure Chest records. No one form is required, although the record itself must be businesslike and clear. Dorothy's is on loose-leaf paper, ruled vertically with columns for the date, for a description of just what she did, and for the total of each transaction.

But it was not only because of the form of Dorothy's record that Miss Fitzpatrick selected it for first prize. Dorothy shows in each entry that she is a good business woman. The work she did to earn money all needed doing, and was a real service to others as well as profitable to herself. Her home is so situated that during the summer the selling of food to tourists is an excellent way of earning money. Other members of the family were already engaged in this work, so Dorothy proposed that she be made responsible for certain tasks at home in order that the others could be freed for their business.

Dorothy was paid for part of the work which she did, at an hourly rate. The rest of it she regarded as her share in their home. In recording this latter fact, Dorothy brings out an important point in our Treasure Chest plan, and that is that 'Money Saved' means not only money actually put in the bank but the amount saved by doing something which otherwise would have cost more. The total amount Dorothy earned in six months was \$23.14; the total amount saved was \$72.40.

Honorable Mention in this Treasure Chest contest is given to: Bessie Browne (18), Mechanicville, N. Y.; Ruth Butcher (14), Bayard, Neb.; Elizabeth Emlen (15), Germantown, Pa.; Virginia Harris (18), Sleepy Eye, Minn.

#### What the Other Girls Did

Bessie Browne made novelty Christmas gifts and sold them. She is greatly interested in music, and the money she is saving and earning is to pay for a trip to the Curtis Institute in Philadelphia. Elizabeth Emlen made salted almonds, which she sold. Virginia Harris's record is especially attractive, with its gray cover on which she drew a ship in silhouette. In addition to the record of what she earned and saved during six months, Virginia included the record of her expenditures in detail and of her bank deposits and withdrawals.

Entries for our next Treasure Chest awards are due in this office by July 15, and should cover what you have earned and saved during the months of January-June, 1929, inclusive. The prize will be the same as Dorothy's—a Treasure Chest in which is a five-dollar gold piece.

HAZEL GREY

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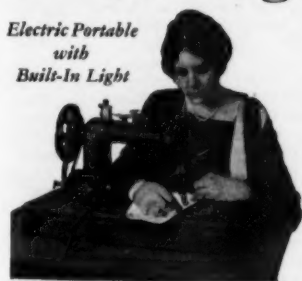
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# THE G.Y.C.



## That Surprise Package

By ALICE BRADLEY, Principal of Miss Farmer's School of Cookery

IT would be difficult to imagine a greater contrast than that between the pantry shelves of our great-grandmother and ours. How her eyes would glisten, and how she would exclaim in delight, I know, if she could step into our kitchens and see the rows of packaged and canned products, all ready for our use! Every year brings new and welcome additions, until today not only there is a wide variety, but it is actually difficult to find certain products, such as cereals, outside the neat and attractive packages. I call them our "surprise packages," for more reasons than one.

Then, too, there are our canned products. Have you ever heard that it was Napoleon who was really the godfather of the canning industry? It was he who urged upon scientists the experimentation with food preservatives so that his armies might have better food. From that day to this, such experiments have been constantly extended, until now, if you will look for them, you will find many interesting points about the canned products which you buy. For instance, there are the lacquered or enameled cans for acid products, or those which naturally have a bright color. This prevents the bleaching process which would take place in the ordinary tin can. When next you have baby beets, notice the shiny lacquer inside the can.

Many of you have written me that you do the family marketing. Why don't you surprise and impress your grocer the next time you go to his store by learning beforehand the numbers of the various sizes of cans—1, 2, 2½, 3 and 10—and asking for your canned goods by number? Except for a very large family, I suggest that you save money and time for yourself by purchasing at least two packages or cans when you buy them. Remember that with our high specifications for canned goods, the contents of all standard brands are reliable. The only point to keep in mind is to look at the can and make sure it has not bulged in the shipping. This rarely happens, but it is well to be on the lookout for the exceptional time.

This month the G. Y. C. recipes which I have tested for you all include the use of one or more packaged or canned goods. Won't you write and let me know how you have enjoyed them and what kinds of recipes you would like to have here on our page from now on? I should love to hear from you.

#### SQUAW DISH

An original G. Y. C. recipe. From Dorothy K. Carpenter, Marquette, Mich.

Cut ½ pound sliced bacon in one-inch squares and one small onion in small pieces and fry together, until the bacon is light brown and crisp. Drain off the bacon fat, add one can kidney beans, one can corn and ¼ teaspoon salt, and ¼ teaspoon pepper to season.

### THE CANDY CONTEST

SO many recipes poured in on the Candy Contest judges that they are still busy sorting, testing and grading them. When we announced last month that the prizes would be awarded in this issue, none of us expected that so many hundreds of luscious candy recipes would be found among the entries. Hard candy, soft candy, chewy candy, brittle candy, fondants, bonbons, chocolates, taffies and dozens of other kinds have been entered. Choosing the winners is proving difficult, but the work is now almost finished. Watch for the announcement next month!

Let simmer a few minutes and serve hot. This recipe serves six people.

#### FISH AND EGGS

From Mary Elizabeth Foster, Leesville, La.

Put one tablespoon butter in frying-pan that is just warm enough to melt it. Break four eggs separately into a small dish and then put into frying-pan. Pierce yolks with a fork and add ½ teaspoon of salt and a few grains of pepper, stirring enough to mix well. Add one can fish flakes and two tablespoons of cream. With a spatula or flexible knife lift the mixture from the outer edges to the center. When the eggs are set, the mixture should show the greater part of the eggs cooked with the whites and yolks set separately. Fold over, away from handle, turn onto a warm platter, garnish with parsley, and serve immediately. This recipe serves eight people.

#### RICE AND PINEAPPLE PUDDING

From Marion L. Morash, Waltham, Mass.

Wash ¾ cup of rice and cook in two quarts boiling, salted (two teaspoons) water, twenty to twenty-five minutes, or until soft. Drain in colander, rinsing with cold water. While rice is cooling, beat ½ pint heavy cream, adding ½ cup sifted powdered sugar gradually when cream begins to thicken. Combine rice and two cups of crushed pineapple, and when cold fold in whipped cream. This recipe serves eight to ten people.

#### CHOCOLATE PUDDING

From Dorothy B. Chamberlin, Housatonic, Mass.

Put 2½ cups milk and 1½ squares chocolate in double boiler to scald milk and melt chocolate. Mix ¾ cup sugar, a few grains salt and three level tablespoons of cornstarch thoroughly with remaining milk, and add to milk and chocolate mixture. Cook in double boiler twenty minutes. Beat one egg. Add a little of the hot mixture to egg and then return to double boiler to cook two minutes. Remove from fire and stir in ½ teaspoon of vanilla. When cool put in sherbet glasses and serve with whipped cream. This recipe serves four people.

#### TAPIOCA PUDDING!

From Mildred Mockabee, Little River, Fla.

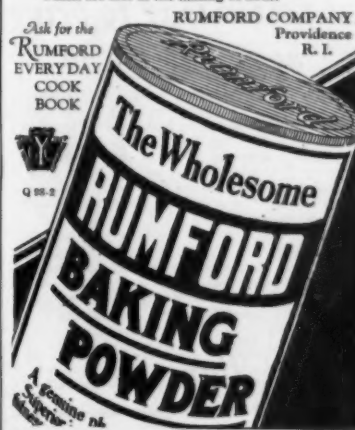
Put one quart milk in double boiler and when scalded stir in ½ cup quick-cooking tapioca and ¼ teaspoon salt. Cook fifteen minutes, stirring frequently. Then stir in two egg yolks beaten with two tablespoons cold water. Add ¾ cup sugar. Cook until mixture begins to thicken like custard. Remove from fire, add one teaspoon vanilla and beat. When almost cool, add one cup raisins or other fruit.



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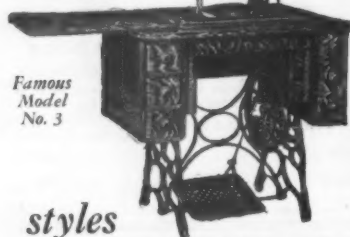
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# THE G.Y.C.



Felt hats are always popular. Here are new models obtainable in felt or combinations

If you buy a cloche hat remember that turn-away brims are best for a young face

Plain felt hats are smartest of all with tailored clothes

## Spring Chapeaux

By Elizabeth Lee

AS soon as a crocus pokes its sleek, gay, little head through the crusty brown soil a direct challenge has been hurled at each of us and the need of a crisp new top-piece becomes imminent.

That event is approaching, and it is time to plan what you want. Each one of you probably fancies the idea of a new, becoming spring hat, but if you put no thought on it and follow the whim of the moment the chances are that it will not be a success.

What do you ask of a hat? Something to keep the dust out of your hair? A head covering to keep you from catching cold? Or do you require more? A hat is little, but powerful. It can make a long nose look shorter. It can make a thin face look rounder. It can make an ordinary-looking girl look like one of the *bei polloi*, or it can make her the target of all appraising eyes. It can ruin or complete a costume.

Let's take up the question of spring colors and think of hats that belong with them. Bright dark-blue is one of the popular colors, and with a suit of this a blue and red or blue and white hat is a clever choice. If your spring ensemble is one of the new greens it will prove more interesting if you select a green hat of another hue. For instance, if your coat is yellow-green, wear a blue-green hat with it—just the sort of thing your grandmother would have discarded because it didn't match.

The brown-eyed girl who goes in for brown and beige tweed mixtures does well to choose a plain felt a little darker. If her coat is buff, her hat may be a combination of dark and light. A good general rule is this: if the coat is plain, the hat may be a mixed weave or a blending of two colors or shades, whereas if the coat is a mixed weave the hat should be plain. A bright-red hat with a blue suit is not nearly so smart as the blue and red one referred to above, and a green hat with a buff coat—even though the dress underneath is green—is not so chic as a buff one. Later in the summer, when you are wearing summer frocks and no coat, you can be a little more daring, but here too you must stop to think. With a printed frock the costume is usually at its best when the hat matches the hosiery, for there is a limit to the number of colors which can be grouped successfully on a few feet of anatomy, even though this is a colorful season.

Don't forget that your hosiery is one third of you, and that a hat of the same color will fit in with all costumes. As a rule, gay hues belong

to the scarf rather than the hat. It's worth remembering.

Felt hats will continue to be popular, but they will frequently be combined with straw. Hats of straw-and-wool braid, straw and angora or horse-hair and chenille are new and engaging. A bright red angora-and-straw chapeau would be delightful with a suit of cream white jersey. Leghorn, horse-hair and the straw that looks like linen will all be worn later in the season. These are at their best without a drape or wrinkle and trimmed only by a soft ribbon wound round the crown.

Most of the early spring hats are cloche shape; but beware, for many of them put out your personality as a snuffer does the flame of a candle. The brim which turns away from the face is far more becoming to most youthful faces. When these turn-up brims are finished with a scallop edge they have an added interest. Points that stick out at the side are sometimes becoming, and the little knotted ends at the side or top of the crown are always jaunty.

I want to register a plea for the regulation felt hat of the riding or walking type. The plain brim, either straight or rolling with a plain grosgrain ribbon around the crown, is smarter for the tailored girl than anything else. The pitfall for most young girls is attempting to wear hats too old and too sophisticated—those, in fact, designed for their mothers. The fifteen-year-old head may look very smart in it, but the whole effect will be neither interesting nor ultra smart, for appropriateness is essential to these two qualities, and the hat designed for the forty-year-old face is not appropriate for the face which has been exposed to only sixteen summers.

There are certain characteristics which are a part of youth, and which should be capitalized while that elusive quality is still with you. Jauntness is one of the most enviable. The beret and the cloche with little ears at the side or top of the crown are jaunty. Sauciness is another. A cloche that is suggestive of a poke bonnet is saucy. There is also a certain vagabond recklessness that is at its best in a symmetrical hat with a straight or evenly rolled brim, and there is a frank naiveté that shows to best advantage in a brim which turns up from the face.

If you will keep at it till you find a top-piece that suits your type, becomes your face and is an integral part of your costume, your spring hat will give as much pleasure as do the crocuses and jonquils and lilies of the valley.



still, of course, unbenevolent—but the comfort and luxury of the consul's home were very real and present, and the sense of a race well run was deeply satisfying. The only anxiety that still pricked Rod's mind was his concern for Victory.

The Miraflores—or Mangosteen—had been duly traced. She had slipped off for Norway, where she was billed to pick up a perfectly legitimate cargo of lumber. But, according to the consul, there would now be more than lumber waiting for her, and Captain Brisbane would have a hard time clearing himself and his ship. So then, there were only two things Rod regretted in the least in all the adventure: the horrible anxiety it must have caused his mother, and the fact that he hadn't, after all, been able to get Victory permanently ashore and away from her ill-assorted shipmates. For the rest, it had been great! Something to look back on all your life. Even if you had to pitch hay all the rest of your—by gracious, you wouldn't have to pitch so much hay, now! Fifty thousand, properly invested—he kept forgetting. Why, it even meant—even a chance to work for that career Dad had planned! A very queer thought, which the consul had pointed out, was that by this time, thanks to the Associated Press and the Atlantic cables, Rod's mother had doubtless read the entire tale in the newspapers!

"I only hope they haven't made too ghastly a mess of it," Rod said, "like some kind of movie."

**W**ALKING now in the oldest part of Antwerp, a new thought struck Rod. It would be fun to hunt up that good old woman, Vrauw Voorlaken, thank her again for her shirt, and show her what a nice one he now possessed. He rather liked the idea of correcting the impression of filthiness and ravening hunger that he must have left with her. And he could pay her now, if she would permit it. That curious old coin he had grubbed up in the deserted house he was keeping as a pocket-piece. Forever it would remind him of the most thrilling days of his life; forever it would bring back to him the moldering darkness of that dreadful place, dawn in the quiet old streets, the falling sound of carillon music. He was amused to trace his way to the Rue d'Epice, and to pull the bellrope of the neat little house. Vrauw Voorlaken did not know him; she curtsied and called him Mijnheer.

"Rodney Granger—you remember?" he grinned.

She raised two brown, wrinkled hands in amazement, and hastened to let him in. It was pleasant to see again that tidy kitchen, with its green-tiled stove and flagged floor, and its rows of well-scoured pans and kettles. Vrauw Voorlaken dusted a spotless chair for him and sat him down near the stove, though the day was far from cold. Each was greatly hampered by not knowing the other's language, but they beamed at each other, and nodded from time to time. Rod was wondering how he should approach the subject of paying her for past favors, when the old woman proceeded to put him under fresh obligation. On the scrubbed wooden table she set out bread and fresh cheese, radishes, and stone mugs of milk. The two sat down to this strange sort of high tea in excellent spirits; the good woman kept nodding and assuring him again and again, in Flemish, of what a fine lad he was.

The rather odd repast finished, Rod stood up to take his leave, repeating over and over his hearty thanks; somehow he felt it better not to proffer money—not even for the shirt. But

## LUBBER'S LUCK

[CONTINUED FROM PAGE 291]

the Vrauw glanced out at the door and exclaimed, "Er vallen droppels!" Raindrops were indeed falling, faster and faster, and with the kind old soul's imploring hands on his coat-sleeve Rod sat down again, before the stove.

All at once the outer door was burst open with a rush, and a young voice cried, "Het regent hard!" then was cut short in a sudden silence. Rod turned his head to see the speaker—then sprang up. For a slight figure, wrapped in a rain-spattered Flemish cloak, and with drops glittering on her flying hair, stood frozen in the doorway.

"Victory!" Rod shouted. "How in the name of all that's wonderful did you get here?" "Same to you," she said, rather breathlessly. "I supposed you were halfway to nowhere," he cried. "I've been worrying about you."

"You should worry about me," she laughed. "I ain't worth it."

"There'd have been more for you to worry over than you might think," he said gravely.

"What's happened, anyways?" she asked. "Only look at you! A swell suit—and a silk shirt—and them snappy English shoes! Now I know how you'd ought to looked all the time. That coal-passer disguise sure didn't fit."

"But tell me," she urged, as they sat down and Vrauw Voorlaken brought more food, "how did you get out, and when?"

"Oh, just before she got under way," Victory confessed. "Jan used to bring me chow. He's kinda soft in the head, you know, and it didn't take me so awful long to persuade him to let me out."

"I'm frightfully glad you did," Rod said, "because everything's all over. Crowder and Hubbard are locked up, and the law's going to be waiting for the Miraflores when she reaches port in Norway."

Victory put back her head and laughed, then looked at him with her sea-cold eyes. "Norway!" she cried. "What makes you think she's going to Norway? Maybe she is, and maybe she ain't. Pop allows he's sick of the business. He says he's quit—and I sure hope he has. But you never can tell."

"You're the queerest proposition I've ever run up against," Rod said. He shook his head and stared at her.

"Now you tell yours," she said. "I venture the sparklers are safe?"

"Let's hope so," he assented. He sketched the events of the last few days, and Victory whistled from time to time as the tale progressed.

"But it was just as much your doing as mine," he insisted. "Every bit. Why, I didn't even know there were any sparklers till you told me! What in the world could I have done if you hadn't let me out of that rat-hole, and then told me where the diamonds were? No, you're the real heroine, and if Mr. Marquier and the consul knew you were in Antwerp they'd want to see you, I know, and do something about splitting this reward."

Victory started up. "I don't want to see none of them kinda birds!" she cried. "Nothing doing! They'd want to know all about all kinds of things it'd be too much trouble to tell 'em. I'm glad you're O. K., and I'm glad you got the sparklers and the money—and I'm glad I'm here and that Pop ain't. And that's all there is to it."

The old woman had all this time been watching the two with bright, interested eyes, and

now Victory turned to her with some sort of explanation in Flemish, interlarded with a good many gestures, English words and puzzled scowls. The good Vrauw raised her hands many times in amazement, and looked at Rod with increasing admiration. On the strength of his being such a hero, he must have more food! She bustled off toward her little larder.

But Rod got up. The shower was nearly over; he must get back to the consulate.

"See here, Victory," he said, "I'm sailing day after tomorrow on one of these crack ships, as Mr. Marquier's guest—but I don't know but what I'd almost as lief be rolling along in the old Miraflores! Look—I've got gobs of money here—"

He pulled out a fistful of pale 500-franc notes. "Oh, no, heavens! This isn't all of it, on me! But a-plenty. It ought to be yours, anyway. It would be, if Mr. Marquier knew. You've got to take this, Vick, and use it to get back to America. I wish you'd come to my mother—and sort of get a new slant on everything. I guess your mother would have liked it; she was a landswoman, too. I guess maybe I'll be able to get away and do some real studying, now, and Mother'll be horribly lonesome if I do."

**V**ICTORY stood pushing her brown finger up and down the edge of the table, and staring at the pile of notes.

"Honest," she said at last, "I never can figure out what you're gonna do next, and why. You sure are different—I always said so."

"You will do it?" said Rod.

"What makes you think I will?" she asked. "Why do you trust me with all that money? How do you know I mightn't go out and blow it all in on cumshaws?"

He shook his head. "You wouldn't," he said. "I've been shipmate with you long enough to know what you'd do. I know what'd make you come."

"What would?" she demanded, almost defiantly.

"That little yellow house," he smiled, "with the lilac bushes, and the sweet peas—you know."

"And the beds," she murmured. "And my mother," he added.

There was silence, as Victory stared at nothing with wide, sea-bright eyes. A queer little figure, in the incongruous and ill-fitting Flemish dress, her wild dark hair framing her small, brown, decided face. The clock ticked imperceptibly on; the kitten purred. Victory sighed and shook herself. Her eyes came back from far places and she looked at Rodney.

"You've never said anything to me yet that wasn't straight," she said. "But I dunno how your mother'll take it."

"That means you'll do it?" he asked eagerly. Victory nodded. "I guess you're right about my mom liking it." She smiled suddenly—an odd swift little smile. "It'll be her victory after all, then, won't it?"

"So it will," Rod said.

"Well," Victory sighed, "it's all been the biggest kick that ever came into my life. But you sure did pull everything off great!"

Rod smiled. "I bungled everything, pretty nearly," he said. "It was just lubber's luck, I guess."

Victory looked at him square and clean—her eyes were as keen and as clear as wind. She shook her head admiringly.

"You! You ain't no lubber!" she said slowly.

[THE END]

## IF IT CAN'T BE DONE—HE DOES IT!

[CONTINUED FROM PAGE 261]

lic, Mr. Lambert uses only the finest of silks, satins, linens, and furs in his screen garments. Your favorite star often wears screen clothing at social affairs. Why not, pray? No better materials or workmanship can be obtained anywhere.

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"A former court attaché of the Russian Czar," said Mr. Lambert, "is now engaged in making pictures. He came in one day and made a request for a number of hats and uniforms to be used in a Russian picture. I told him that

there were no such hats or uniforms in existence."

"I know what I am talking about," he insisted, when I told him that we wouldn't make such stuff. 'I should know what Russian soldiers wear.'

"Nevertheless they did not wear the kind of design he wanted, and when I took him into the library and showed him a Russian Military Manual he agreed. We could have made the hats and rented them to him, for we never sell anything, even though it is specially made for a customer; but what earthly use would they have been to us when he had finished the picture? No Russian picture could have used them again if the director was particular about details. And today the director that isn't particular is a rare exception."

No secretarial barrage is laid down before Mr. Lambert's private office. Anyone, whether he has business with him or not, can wander in. This seems extremely careless of him, for thousands of priceless antiques—tomes, prints, jewelry and what not—lie in unlocked cabinets that range the four walls. During my

last visit there were no less than fifteen movie stars who stopped at the door with a "Hello, Ed!" Mr. Lambert is a friend to the entire motion-picture industry.

It is because he knows the stars so well that I asked him to compile the list of questions about them which you will find on page 261, for you to answer. Let's see how well you know the stars.

The movies are educational. Their value in imparting information is now recognized everywhere. Detail must be right; if it isn't, the majority of the audience may be seriously misled—and the minority will write terrific letters about mistakes to producers and directors. And so the movies teach now, as well as entertain. And no one deserves greater credit for this state of affairs than the owner of the crazy telephone, the Edward Lambert who is the walking encyclopedia of Hollywood.

Here are the answers to the questions printed on page 261:

1: Lon Chaney. 2: Harold Lloyd. 3: Richard Dix. 4: May McAvoy. 5: Lillian Gish. 6: Monte Blue. 7: Col. Tim McCoy. 8: Ramon Navarro. He is studying under Louis Gravelle, the baritone, and plans to go on the concert stage. 9: Karl Dane. 10: Dick Sutherland and Bull Montana.

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### Let's Go! WHERE?

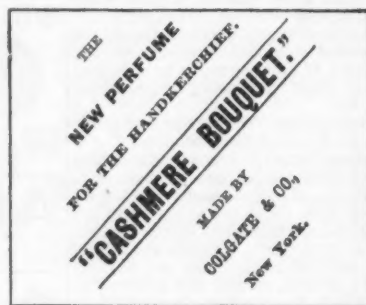
### To Camp!

This summer, every summer. Learn to do things: play tennis, ride horseback, swim, canoe and hike. If you don't find listed here a camp suited to your needs, write and let us help you.

### The ATLANTIC PUBLICATIONS EDUCATIONAL DEPARTMENT

8 Arlington Street, Boston, Massachusetts

Here was the first advertisement of Colgate & Co., which appeared in The Youth's Companion for 1873.



# Advertising's artful aid....

THE Youth's Companion has many distinctions. Among them is this: it was one of the first periodical publications in the world to be used as a vehicle for advertising.

Advertising first appeared in The Youth's Companion in 1857—seventy-two years ago. And the first advertising of firms still known and respected came only a little thereafter when G. & C. Merriam, Tiffany and Co., and Mason and Hamlin appeared in its pages.

Then, in 1873 came Colgate and Co. Look at their first advertisement from the Companion for March 27, 1873, at the top of this page. Then, if you want a perfect example of the progress of advertising—56 years of it—compare this specimen with the finished perfection of the company's present day copy on page 278.

In the days of your fathers and grandfathers the value of advertising had been recognized—the principles of it were only imperfectly understood. Today, the principles have been refined and extended—and are constantly being studied and improved. Famous psychologists pass on the correctness of copy; statisticians determine the groups it should reach. Gifted writers prepare the copy; artists known the world over present it in attractive guise. Millions of dollars are spent to purchase the magazine space to present it. To whom? To you!

Today the editors of any magazine can tell only half its story. The other half is told by the advertisers who purchase space to tell the story of their services or their products. Advertising today makes fascinating, instructive and valuable reading.

Every advertisement in this month's issue of The Youth's Companion is there for a purpose. Are you, the reader, as shrewd as your friend, the advertiser? Do you see the purpose, the appropriateness of his advertising—what it means to you, how it can help you?

Look this issue over again. Read its advertising with the same care with which you read its stories and articles. We don't hesitate to say there is as much help, entertainment and knowledge in the one as in the other.

And when an advertiser makes you an offer, take advantage of it. In particular, clip the coupons.

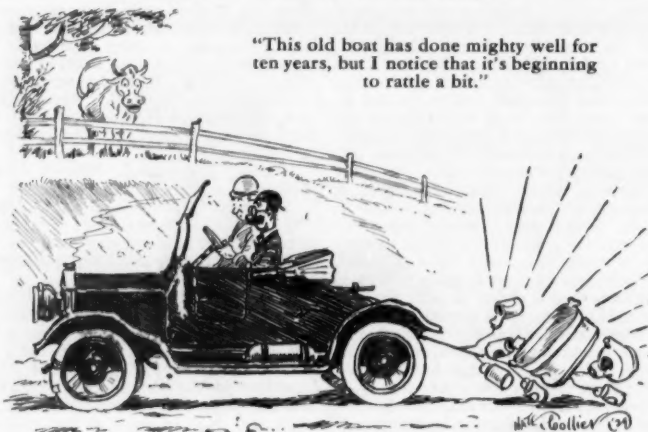
## THE YOUTH'S COMPANION

AN ATLANTIC MONTHLY PUBLICATION  
EIGHT ARLINGTON STREET, BOSTON

200 Fifth Avenue, New York City • Tribune Tower, Chicago  
Union Oil Building, Los Angeles • Russ Building, San Francisco

## NOW YOU TELL ONE

The Companion will pay \$1.00 for each original joke that is accepted for this column. Only the best of the thousands that are sent us can be used and paid for. We can not undertake to return those that are not accepted.



### Plenty in Stock

OLD lady to pilot: "Why so nervous and pale, my boy?"  
Pilot: "We have lost both wings."  
Old lady: "Well, don't worry; we'll get new ones when we land." —Caroljean Keplinger

### A Thoughtful Owner

GENTLEMAN: "Rastus, I s'pose that U. S. on your mule's leg means United States."  
Rastus: "No, suh, boss; that ain't no United States. That's a warning; U. S. means unsafe." —Theodore Hurt, Jr.

### The New Pharmacy

I HEAR Jones fell down on his pharmacy examination.  
"Yes—he got mixed on the difference between a Club and a Western sandwich." —John B. Blakely

### A Little at a Time

BILL: "I got my whiskers on the installment plan."  
Rob: "The installment plan?"  
Bill: "Yes, a little down each week." —Dicy Kate Phillips

### Desperate Character

JUDGE: "Were you ever in trouble before?"  
Prisoner: "Well, yes and no. I kept a library book too long once and was fined two cents." —J. G. Van Bramer

### Spring Training

DID you miss that train, sir?" asked the porter.  
"No! I didn't like the looks of it, so I chased it out of the station." —Leroy Shuster

### Progressive

REAL-ESTATE agent: "Well, what do you think of our little city?"  
Prospect: "I'll tell you, brother; this is the first cemetery I ever saw with lights." —Alfred Littman

### A Forward Step

STAGE MANAGER: "Have you had any stage experience?"  
Job seeker: "No, but I had my leg in a cast once." —Melvin Glantz

### Explained

STREET-CAR conductor: "Madam, this transfer has expired."  
Irate lady: "Well, you can't expect much else with the cars so poorly ventilated." —Elwood Pier

## NUTS TO CRACK

A CORNER FOR BUSY MINDS

### 1. CHARADE

My first's a queer, unpleasant sort of noise;  
My second is a word that means to place.  
When you're not out, then you must be my third.  
The whole's a strange, weird man with bearded face.

### 2. MISSING WORDS

\*\*\*\*\* WE WENT \* \* \* \* \*  
One word is to be placed in the first set of stars, a letter for each star. These letters, in the same order, form the three words for the second set of stars.  
The whole was said by one of three young men who went to escort a lady to a party.

### 3. CHARADE

The first's a chum, a man to have at hand;  
The second is a country named in verse,  
The third, a city of an ancient land.  
The whole remains the same if you reverse.

### 4. MISSING LETTERS

R V R W L L T H S M  
B R S G R Y V R G R N  
T R S R N W R T H Y  
If the proper letter be distributed among the letters given, the result will be a rhyming couplet.

### 5. WORD-SQUARE

1. To go completely around. . . . .  
2. Hardem. 3. Art king of. 4. . . . .  
To make a mark by folding. . . . .  
5. A person who has rented property. 6. To think highly of. . . . .

### 6. A RIDDLE

I'm the name of some land  
Surrounded by sea.  
If you cut off one end  
(Just a quarter of me!),  
You will find (such am I)  
Naught remaining but sky!

### 7. CHARADE

First a father, then two sons,  
Each by a different name.  
The whole denotes a fancy shade  
That's carried by a dame.

### 8. LETTER ADDITION

POWKI  
HULDA  
HAWAII

When Hulda met Powki in Hawaii they wrote the names as above and found that by letting each letter stand for a different number they formed a correct addition. See if you can do the same.

### 9. MISSING WORDS

\*\*\* coal, if but you buy a \*\*\*.  
Is \*\*\* too small to fill a \*\*\*.

The first and fourth of the missing words contain the same letters; likewise the second and third. The whole is a rhyming couplet.

### 10. CONCEALED CITIES

The best description of the name of a city in Texas is that its name is formed from three musical notes. And the name of an ancient city is concealed in the above description.

### ANSWERS TO APRIL PUZZLES

1. Ri-go-let-to. 2. Constantinople. 3. Half-dollar (remove "half" to make "dollar.") 4. Ate, Eat, Tea, Etc. 5. Winsome—Some win; Canton—Ton can. 6. De-port-at-ion. 7. WHO IS SI OHM. 8. Astoria, Oregon. 9. "Always be CIVIL." 10. \$5.25 was the original amount. Work the problem backwards. 11. Stop, Tape, Opal, Pelt. 12. 1881.



# THE CHILDREN'S PAGE

## Pitter Patter and the Soap

By Grace Taber Hallock

ILLUSTRATED BY F. STROTHMANN

ONCE there was a mouse whose whole name from beginning to end was Pitter Patter. Pitter Patter lived in the bathroom of the house in which Michael lived. Pitter had never seen Michael. Whenever he heard footsteps coming to the bathroom, clump, clump, clump, he hid himself in his hole behind the bathtub.

Pitter did his shopping at night. When the house was full of the tiny creaking noises which meant that it was talking in its sleep, Pitter stole from his hole with his market basket over his arm and went to the mouse market.

The mouse market was in the pantry. There an old gray rat sat on the pantry shelf with his wares about him. These were scraps of food that he had gathered when Michael's mother was not looking. Sometimes he had a few bits of cheese which he had stolen from a trap. The cheese brought a very high price.

Behind a pickle jar set against the pantry wall, a hole yawned. This was the cat escape. At either end of the pantry shelf, mouse lookouts kept watch. The lookouts were in the pay of the old gray rat.

The old gray rat had a museum. In it, in glass cases, he kept the things which the mice collected to pay for the food which they bought of him. In the museum were blue and red and green glass beads, bits of colored yarn, needles and pins, a gold thimble, and many other rare and beautiful articles.

The mice had divided up the house into districts. No mouse could collect things for the old gray rat's museum in another mouse's district. Pitter Patter's district was the bathroom. This was the worst district in the whole house. There are very few things left lying in a bathroom which a mouse can carry.

ONE evening Pitter crept to the top of a chest in his district. He had never been there before. He had always been afraid that someone would come in suddenly and catch him before he could reach his hole. But this evening Pitter was desperate. He had nothing to give the old gray rat in return for food.

On top of the chest Pitter saw something which made his eyes sparkle. In a glass dish lay a round, pale pink object which Pitter thought must be a little cake. He pattered over, tippy-toes, and smelled it. It had a faint sweet smell. Then he nibbled at it. Ugh! It was not cake at all. Pitter did not like the taste it left in his mouth. Then he began to think. It was not good to eat,

but perhaps the old gray rat might like it for his museum.

"Surely," thought Pitter, "he hasn't anything like this." He tried to lift the object, but it was too heavy. Then he tried to push it over the edge of the chest to the floor. But he could not do that either.

"I will go and tell the old gray rat," said Pitter. "He is very old and very wise. He may think of some way to get it to his museum." So Pitter ran to the pantry.

"Good evening," said Pitter to the old gray rat.

The old gray rat nodded. "Be brief," he said gruffly.

"Yes, sir," said Pitter, gulping. "In my district I have discovered a great rarity. It is fat and round and pink, and has a nice smell, but it is not good to eat. I said to myself, sir, this is just the thing for His Honor's museum. But alas, sir, it is too heavy for me to carry!"

The old gray rat's eyes glistened. He stroked his whiskers thoughtfully. "I know what it is," he said at last. "It is what is called a cake of soap. I have one, but it is yellow. It is set up at the entrance to my museum. I should like to add another to my collection, especially as it is of a different color."

"Can you suggest a way to get it to your museum, sir?" asked Pitter timidly.

The old gray rat smiled. "I suggest that you wait," he said.



"Yes, sir," said Pitter, gulping. "In my district I have discovered a great rarity. It is fat and round and pink, and has a nice smell!"



After one mighty tug, Pitter tumbled backward with the soap in his paws. "Hooray!" he said weakly.

"Wait!" cried Pitter. "What has waiting to do with it?"

"Everything," said the old gray rat. "Keep an eye on it and wait. In the meantime, I can give you credit, if you like."

"Yes, sir," said Pitter gratefully. "And if I deliver the cake of soap to you, what price will you pay for it?"

The old gray rat cleared his throat. "Food from the market for a year," he said.

Pitter's eyes almost popped out of his head. "Food for a year!" he gasped. "Oh, sir, thank you, sir!"

NIGHT after night Pitter crept timidly to the top of the chest to keep an eye on the cake of soap. Much to his surprise it seemed to grow smaller. Pitter wrung his paws in despair. "What shall I do if it disappears altogether?" he muttered.

He went to the market each night for the plain, wholesome food which the old gray rat doled out to him. "I am running up a terrible bill," wailed Pitter in the privacy of his hole, "and

each night the soap grows smaller. I shall be ruined." He did not dare tell the old gray rat that the cake of soap was slowly disappearing.

At last he decided to hunt for an explanation of this strange state of affairs. He found a spangle from Michael's mother's dress and pinned it on his chest. "Now I am a detective," he said.

He searched the bathroom carefully for clues. He noticed at once that after each shrinking in the size of the soap the washcloths were wet. "They are to blame," said Pitter. And one night he nibbled holes in all the washcloths.

But the cake of soap continued to grow smaller and smaller. Despair made Pitter bold. "A detective must not be afraid of danger," he said.

That evening when Michael came to the bathroom, Pitter crept under the tub. He heard water splashing and peered out. He saw Michael take the soap from the dish. Then the boy disappeared. But directly above him Pitter heard splash-

ings and whistling and singing. Then he saw Michael's bare feet on the bath-mat. "Mother," shouted Michael, "the soap is almost gone."

"I know it," squeaked Pitter. Then he put his paw over his mouth and shivered. But Michael had not heard him.

LATE that night, Pitter examined the cake of soap. "It is very small," he said. "Why—why," he stammered in his excitement, "I believe I can carry it now." He stood on his hind legs and leaned over the edge of the soap-dish. With his front paws he tugged and pulled at the soap, which was stuck to the bottom of the dish. Beads of sweat dripped from his nose. His muscles swelled. And then, after one mighty tug, he tumbled backward with the soap in his paws. "Hooray!" he said weakly.

He dropped the soap to the floor and clambered down after it. Then he packed it into his market basket and went staggering with it to the pantry. "Look! Look!" he shouted to the old gray rat.

The old gray rat rose and walked to the edge of the pantry shelf. He peered over.

"It is much smaller than it was," said Pitter. "But I hope, sir, that it will prove satisfactory."

"Quite, quite," said the old gray rat with a wise smile. "Didn't I tell you to wait?"



### A New Maze for You to Solve

If you take a pencil and start at the correct corner of this maze, tracing the path through very lightly with a pencil, the outline of an animal you are all familiar with will appear. When you have found the right path, color it in with crayon or water-colors. The solution will be printed on the Children's Page next month.

## NEW SCOTT-SEALED PACKETS

Look over this list of fine bargains, and remember that in addition to these attractive guaranteed packets that there are many hundreds more in the big free Scott List of Packets, Sets, Dime Sets, Albums, Catalogues and Accessories.

No. 185 20 diff.	Leichtenstein.....	10c
No. 187 22 "	Guatemala.....	25c
No. 270 15 "	Uruguay.....	10c
No. 432 34 "	Semi-Postal.....	45c
No. 435 10 "	Liberia.....	20c
No. 442 25 "	Nyasa.....	60c
No. 445 10 "	Upper Volta.....	10c

When you send in your order ask for a free sample of Scott's Monthly Journal, the finest stamp paper, which lists special bargains and also gives you a monthly supplement to the Standard Postage Stamp Catalogue.

We will also send free to those asking for it our approval department and our "Air Mail Packets" Circulars.

SCOTT STAMP AND COIN CO.  
1 West 47th Street, New York, N. Y.

### MYSTIC'S "QUEER COUNTRY" PACKET!!

Contains scarce stamps from the following strange lands: San Marino, Antigua, Congo, Cyprus, Fiji Islands, Iceland, Kenya, Lebanon, Monaco, North Borneo, Nyasa, Oman, Sierra Leone, Tananyika, Ubangi, Upper Volta, Laos, etc. Get this wonderful packet of "freak countries" and make your friends envious! Price only 10c to approval applicants! Write TODAY.

MYSTIC STAMP CO. (Dept. 9), CAMDEN, N. Y.

### (1) FANTASTIC LIBERIA SET!! (2) Air Mail Set (3) Triangle Stamp

(4) Beautifully illustrated Aerial 1938 Commemorative Set of 5 stamps, (5) 50 different stamps from 50 different far off countries. All 5 groups of stamps above, containing birds, boats, boats, buildings, letters, circles, triangles, squares, maps, portraits, and many other objects picture stamps for only 10c to approval applicants. WESTERN PHILATELISTS, 6023 Harper Ave., Yb. Chicago

**FREE** 100 ALL DIFFERENT stamps to applicants for Universal Approvals. Postage 2c. Badger Stamp Co., Milwaukee, Wis.

### STANLEY GIBBONS U. S. LIST

At last we offer a fully illustrated and descriptive price list of U. S. and B. N. A. stamps—this handsome bound volume has no less than 450 illustrations, including grills and secret marks, postal cancellations, and telegraph stamps are illustrated and priced. An indispensable aid to the identification of all U. S. stamps. Post free 50c. Also our 32 page U. S. and B. N. A. list, free on request. STANLEY GIBBONS, INC., 387 Park Row, New York City, N. Y.

**ABYSSINIA**, 3 big, new, 2-colored stamps, 5c; 5 Portugal, new Independence, 5c; 23 Air-mail, 10c; 50 Latin America, 15c; if you ask for our free illustrated price list, Argonaut Stamp Co., Dept. 68, New Canaan, Conn.

**FREE TRIANGLE-AIRMAIL** ICELAND AND SO OTHERS ETC. BIG BARGAIN LIST, ETC. TO APPROVAL APPLICANTS EXCLUSIVE OF POSTAGE. 1000 HINGES 50-100 DIFF. U. S. 50c. HARVEY STAMP CO. CEDAR RAPIDS, IA.

**TIP-TOP** Premium of 50 different stamps, pocket stamp book, perforation gauge, stamp from Kenya & Uganda, Gold Coast, Persia. 10 cents to approval applicants. TIP-TOP STAMP CO., Colorado Springs, Colorado

150 Diff. 12c; Interesting Menagerie Packet 15c; Famous Ruins Packet 20c; Fine Central American Packet 15c; All Four Packets only 50c; 1000 World Stamps \$1.00. B. & K. STAMP CO., NEWVILLE, PA.

101 Diff. Stamps to App. Applicants, post. 2c. 300 diff. 25c. 1000 diff. 75c. 2000 diff. \$2.75. JOHNSON STAMP CO. (V. C.), Jamestown, N. Y.

**OLD COINS** Curious, Bought & Sold. 5 notes or coins 15c. Retail Lists free. T. L. ELDER, 8 West 37th Street, New York

STAMPS 100 For all diff. to approval app. Postage 2c. 1000 hinges 15c. List free. Q STAMP CO., Toledo, Ohio

60% Dis. APPROVALS—100 Diff. Stamps Free. CHAS. GIVENS, 26 N. Farson St., Phila., Pa.

200 DIFFERENT Stamps 10c; 1000 Hinges 10c. R. H. Carlton, 380 W. 50. Temple, Salt Lake, Utah.

600 different stamps, 50c; 1,100, \$1.00; 2,000, \$3.50. F. L. Onken, 520 75th Street, Brooklyn, N. Y.

## STAMPS TO STICK

A DEPARTMENT FOR STAMP ENTHUSIASTS OF ALL AGES



Canada has issued a new and very handsome series designed to make the country "Dominion-conscious." Three of the designs are shown above: ten cents, pine forests and mountains of British Columbia; twelve cents, the great Quebec Bridge; and fifty cents, the fishing smack Blue-nose in a race off Nova Scotia.

### OVERPRINTS AND SURCHARGES

THE terms "overprint" and "surcharge" have gradually come to be looked upon as synonymous, but there is a distinction which it is important for the philatelic newcomer to keep in mind.

An overprint is any word or inscription or denomination newly printed across a stamp's face. But an overprint is a surcharge only when it automatically gives that stamp a new postal value.

A surcharge is always an overprint. An overprint, however, while it includes all surcharges, is not always a surcharge.

To explain the distinction, here are examples: During the World War the ordinary letter rate in the United States was raised to three cents. Great stocks of the 2-cent stamped envelopes were given the newly-required postal value, three cents, by means of officially printing the

Here again the distinction between "overprint" and "surcharge" becomes at once obvious. These state overprints are not surcharges, inasmuch as the original face values of the overprinted stamps are not altered. They will continue to prepay the same amount of postage as their face values designate.

### Nationalization

STAMPS designed to inspire the people of Canada to become more definitely "Dominion-conscious" have been issued by our northern neighbor—a pictorial series which will take high rank in philatelic art. East and west and the middle lands are represented in the designs; and "postes"—French for "post"—is inscribed as a tribute to the French-Canadian population. These newcomers deserve more than passing mention:

Nova Scotia is honored by the 50-cent. The famous fishing smack Blue-nose is shown racing under full sail.

Quebec's contribution, on the 12-cent, is the Quebec Bridge across the St. Lawrence River.

Ontario offers, on the \$1, the Parliament Building in Ottawa.

Saskatchewan, Manitoba and Alberta are symbolized, on the 20-cent, by a prairie harvesting scene, with the Continental Limited express on the Canadian National Railways steaming towards a mountain background.

The 10-cent, representative of British Columbia, shows pine forests with the snow-capped Canadian Rockies towering against the sky, but the interesting feature of this stamp is an Indian totem pole forming each side border.

—an appreciation of the folklore and primitive art of the natives who preceded the present civilization of western Canada.

### Notes

**GUATEMALA** having adopted the quetzal (named after the republic's national bird) instead of the peso as equivalent to the United States dollar, a complete new series has appeared, ranging from ½ centavo de quetzal to 1 quetzal, the latter coin containing 100 centavos. Meanwhile, thirty million remainders of former issues are being surcharged with various denominations in terms of the new currency.

When Charles A. Lindbergh flew from Panama with the first plane of mail from that republic to the United States the letters he carried were franked with a 10-centesimo orange special-delivery stamp overprinted with "Correo Aereo" and an airplane device and surcharged with a new value—25 centesimos.

Swiatowid—a mythical Polish figure with four faces—is represented on a 25-groszy, brown, stamp which Poland recently issued to commemorate the Posen exhibition.

Russia has distributed two child-welfare charity adhesives—10 plus 2 kopeks, brown and red-brown, and 20 plus 2 kopeks, sepia and blue.

Norway's surplus stocks of postage-due stamps are being converted into adhesives for ordinary use by means of overprinting "Post Fri-merke" or merely "Post" to obliterate the word meaning "postage due."



Swiatowid, a mythical Polish deity, on a new issue from Poland commemorating the Posen exhibition

**BIG 12c OFFER** AR for 12c; 96 diff. from all countries, many unused, incl. charity and special delivery stamps; 5 diff. French Colonies; 5 diff. Portuguese Colonies; 10 diff. Danes; 10 diff. Czechoslovakia; 1 packet from obscure countries of Transvaal, White Russia, Cape of Good Hope, Turkey, Siam, Travancore, New Zealand, Guatemala, Mexico, Bosnia-Herzegovina; perf. gauge, millimetre scale ruler; small album for duplicates. This big 88 outfit for 10c to approval applicants. A. R. FERRY, Dept. C, 24 Exchange Place, Providence, R. I.

### FANTASTIC SCENERY PACKET

Contains all different stamps of far-away countries depicting wonderful thrilling scenes. Included are: Belgium (Satan with pitchfork); Barbados (chariot and flying horses); Chile (battle scene); Egypt (obelisk and pyramids); Jugoslavia (nude slave breaking chain); Newfoundland (wild caribou); Malay (terroscopic tiger); Trinidad (Gods of Victory); Tunis (dubious Arab); and others. To superlative collectors enclosing 10c this great packet will be sent. **Fake's Peak Stamp Co., Box 218, Colorado Springs, Colo.** Important: If you act right now, we will also include free a triangle stamp perforation gauge, and a small package of hinges.

### 100 DIFFERENT STAMPS FREE

to applicants for Popular Net Approvals, postage 2c. CHRISTENSEN STAMP CO. 826 Teutonia Ave. Milwaukee, Wis.

### Canadian Confederation Special Packet

25 diff. Canada, 5 diff. Newfoundland, and our new large illustrated lists for only 10c to approval applicants. We list 282 countries in our dime packets. **Canada: 500 diff. 25c; 1000 diff. 75c; 2000 diff. \$2.50.** VICTORIA STAMP CO., Dept. 8, London, Ont., Canada

### STAMPS FREE

12 large showy picture stamps free with a request for my popular approvals at 50% discount. None better. Many good sets free with each return. Postage 2c. A. BAUER, PALMYRA, N. J.

### BRITISH COLONIALS FREE

Stamps from Nigeria, Gold Coast, Hyderabad, Travancore, Malaya, Mauritius, and other good British Colonies. Sent to all applicants for our famous Hampshire Approval selections. 2c stamp postage. Please do not remit in coin. **Light-brown's Stamp Co., Southsea, England**

**ONLY 25c** for a five months' subscription to THE STAMP COLLECTOR, America's finest stamp magazine. 100 all different stamps given FREE to each subscriber. Money refunded if you are not more pleased. THE STAMP COLLECTOR, Dept. Y. C., 515 Sedgwick Drive, Syracuse, N. Y.

**FREE** Germany Air Mail (5 Var.) for new applicant of my 1c, 2c and 3c approvals and also my 50% discount. Charles W. Schmidt, P. O. Box No. 4532, Frankfurt Stn., Phila., Pa.

**Approval Sheets** 50% Discount. Sent Anywhere. **YOUTH'S COMPANION GOS. FREDERICK B. DRIVER, 1430 So. Penn Square, Phila., Pa.**

**COLLECTORS—FREE—SEND NO MONEY.** Stamps you want. Amazing particulars free. Write. John Caserio, 101-F Beech St., Holyoke, Mass.

Newfoundland, New Brunswick, 25 Var., 50c. Canadian. 15 Var. 12c. Confederation, Historical and New Pictorial Issues, 50c. Price List and Premium Free. A. F. WICKS, Brantford, Ontario.

600 stamps 20c; 500 diff. 35c. Album holds 2400 stamps 60c. Michael, 1222c, Carmen, Chicago

**OK** Dandy Packet FREE to app. applicants. 1000 O.K. hinges 10c. O. K. STAMP CO., Box 581, Utica, N. Y.

Newfoundland: 15 var. 15c postpaid. Lists free. Old ads still good. ALLION, Angola, Ind.

**STAMPS.** 105 China, Egypt, etc., 2c. Album (500 pictures) 3c. A. BULLARD & CO., Sta. A8, Boston.

**STAMPS** 30 Varieties unused free. Postage 2c. Y. C. MIAMI STAMP CO., Toledo, O.

California field. \$1/2 size, 27c; \$1/4 size, 53c. 100,000 German Marks and Catalogue, 10c. Norman Shultz, Salt Lake, Utah.

Set Beautiful Stamps with approvals 2c, send references. Edgewater Stamp Co., Box 2731, Cleveland, Ohio.

Dandy Africa British Colonial Set, free with approvals. William Monjar, 3130 Colerain Ave., Cincinnati, O.

25 INDIA, JAPAN, ETC.—4c. Packets on Approval. C. R. SMITH & CO., 1415 E. 9th, Kansas City, Mo.

TRIANGLES—10 different, 15c to approval applicants. Dept. 9, Patapaco Stamp Co., 3110 Farnale Ar., Baltimore, Md.

**FREE!** 15 varieties French Col., Post. 2c. R. E. Roberts, 991 Fourth, Bay City, Mich.

A Watermark Detector, 6c. 4 foreign coins, 6c. Both. 10c. McIntosh, 49 Van Horn, Mittenague, Mass.

109 All Diff. Stamps given free to Approval App. 2c. postage. Paige Stamp Co., Oak Park, Ill.



# A New Easy Way to Earn Premiums

## These fine prizes yours for little effort

### Celebrate With Safety

"Big-Bang" cannot explode, set fire or cause injury of any kind. An over-charge makes a smaller report. Even a lighted match will not ignite Bangsite in the ammunition case. The right charge will neither set fire to tissue paper nor burn the skin. "Big-Bang" will not recoil or "kick." The ideal safe and sane toy, endorsed by safety committees of leading cities.

### Aluminum Triplicate Saucepan Set

The Triplicate Saucepan Set will be given to any Companion reader for securing one new eight months' subscription and 85 cents extra. Add 21 cents for postage. . . . Or the set will be given postpaid for three new eight months' subscriptions.

This set has found popular favor because of economy in space and fuel. With it three different vegetables can be cooked at one time over a single burner. Capacity of each saucepan, 2 quarts. Set is made of well-known "Viko" ware in bright, natural finish with rust-proof steel detachable handle. The heavy-gauge aluminum used in the manufacture of this set and its sturdy construction are the hall mark of excellence that characterize all "Viko" utensils.



The Best Cooks Use Aluminum

### Fielder's Glove

The Fielder's Glove will be given to any Companion reader for securing one new eight months' subscription and 35 cents extra. Add 15 cents for postage. . . . Or given postpaid for two eight months' subscriptions.

Don't miff it. Here's a glove that picks them out of midair without a sting and hold 'em! It is a full-size big leaguer's model with extra padding in heel, little finger and thumb, thus forming a deep and well banked pocket. Made of soft, close-grained black horsehide with heavy welted seams and rawhide lacing on heel. Requires hardly any "breaking in." An exceptionally fine value, and the kind of glove that any ballplayer will be proud to own and use.



NO. 8F

## "Big-Bang" Cannon

No Powder

No Matches

The "Big-Bang" Heavy Artillery Cannon No. 8F will be given to any Companion reader for securing one new eight months' subscription and 75 cents extra. Add 27 cents for postage. . . . Or given postpaid for three new eight months' subscriptions.

"Big-Bang" Cannon No. 6F given for securing one new eight months' subscription and 40 cents extra. Add 21 cents for postage. . . . Or the Cannon will be given postpaid for two new eight months' subscriptions.

Here's just the cannon you want to play military games and celebrate the 4th of July. Mother and Dad will approve of this "Big-Bang" Heavy Artillery Cannon because it uses no powder. The ammunition is Bangsite and ordinary water. Just load it, slam the breech shut, push the firing pin, and off she goes with a flash and a roaring bang. Each cannon comes complete with instructions and enough ammunition to fire 400 shots. The larger the cannon, the louder the bang. We offer two sizes. No. 8F has a well-constructed all metal tilting body with black gun-metal finish and red artillery wheels. Length over all 11 inches.

No. 6F has a non-tilting body and measures 9 inches in length over all. Black finish with red wheels. Design of drag differs slightly from illustration.

### INTRODUCTORY-OFFER

8 months of The YOUTH'S COMPANION for Only \$1.00

HERE is a generous introductory offer which makes it easier than ever for you to earn one or more of the splendid premiums described and pictured on this page. You will experience little difficulty in getting subscriptions for eight months of The Youth's Companion at \$1.00 each—and remember that each new subscription entitles you to a premium of your choice.

Every home where there is a young person between the ages of 8 and 18, and where The Youth's Companion is not already taken, holds a prospect for you. And what a dollar's worth you can offer! The next eight big numbers of The Companion will contain:

Ten book-length stories (worth \$2.00 each); 48 feature stories by America's foremost writers for young people; 16 informative articles by leading authorities; as well as fascinating departments devoted to sport, science, news of the air, stamps, boys' club, girls' club, editorial comment, etc

To introduce The Youth's Companion into thousands of new homes you may accept for a limited time, an eight months' subscription for only \$1.00.

CONDITIONS: Premiums are given only to our present subscribers in payment for work done in securing new subscriptions. By "new" we mean a subscription going to a home where The Companion has not been taken during the past 12 months.

NOTE: One new yearly subscription for which you collect and send us \$2.00 will count the same as two \$1.00 subscriptions for any of these Premiums.

### Eastman Hawkeye Camera

The Eastman Hawkeye Camera No. 2 will be given to any Companion reader for securing one new eight months' subscription and 25 cents extra. Add 15 cents for postage. . . . Or the Camera will be given postpaid for two new eight months' subscriptions.

The Hawkeye is one of Eastman's most popular models and is designed especially for young people. With it you can make most amusing and interesting snapshots which you will want to keep all your life. It is easy for anyone to take good pictures with this camera because it requires no focusing or estimating of distance. Has carefully tested lens and reliable shutter always ready for snapshots. Uses Eastman N C films. Entire camera is made of metal covered with seal grain imitation leather. Takes pictures size 2 3/4 x 3 3/4 inches, of a quality suitable for enlargement.

With the Hawkeye comes a coupon which brings you one year of Kodakery, FREE.



Year of KODAKERY Free!

Shows Actual Size of Picture

# THE YOUTH'S COMPANION

8 ARLINGTON STREET, BOSTON, MASS.



## When he's been working on the railroad ~

ACTUAL VISITS  
TO P & G HOMES  
No. 18

Hold a smooth white cake of PAND G Naphtha. Compare it with any other laundry soap. See how firm and clean-scented P AND G is! And so *white*. Doesn't it seem *nicer* to use a *white* soap for clothes and dishes? Every year more women are turning to *white* soaps, and most of them are using P AND G.

© 1929, P. & G. Co.



ONE summer morning, in our journeys to discover what women think about soap, we found ourself in a snug little white town that wanders happily down to the sea.

As we were about to lift the first shining brass knocker, the door opened suddenly . . . and out popped Edward, his blue eyes a-shine and his very curls a-fluff with excited importance.

"I'm going to build a tunnel and run my train through it!" he announced. And, sure enough, in his basket jangled the tumbled parts of a battered train!

At this moment Mrs. Baldwin\* appeared, and as Edward marched off with his sister, we explained our mission.

"Soap!" exclaimed Mrs. Baldwin cheerfully, "why, I use a fourth of a cake of P AND G Naphtha a day. And if you could see Edward by noon, you'd understand why. That boy has a genius for dirt!"

"You'd think he couldn't get dirty in white sand," she continued, "but somehow, somewhere, he manages! By lunch, his overalls and white socks will be ready for the wash. Then, after his nap, he'll be dressed again. But if his father wants to take him downtown, Edward needs another fresh suit.

"But, you know, I really don't mind.

\*Not her real name, of course

Every morning I take a few moments to wash out the children's clothes—Edward's socks and overalls and underwear, Nan's colored frocks and bloomers. Into lukewarm water they go with P AND G . . . why, it loosens the dirt so quickly I have practically no rubbing to do at all!"

Yes, P AND G is wonderful soap. It loosens dirt just as quickly in cold water as in warm! So firm it doesn't waste away in the water. Why *does* such a good soap cost so much less? The reason really is: P AND G is used by more women *than any other soap in the world*.

This unequalled popularity means that PAND G is made in enormous quantities. And since large-scale manufacturing costs less in proportion than small-scale manufacturing, a very large cake of P AND G can be sold to you for actually less ounce for ounce even than ordinary soaps.

So P AND G costs less *because it is so popular*. And it is so popular because it *really is a better soap*.

PROCTER & GAMBLE

FREE! *Rescuing Precious Hours*—"How to take out 15 common stains—get clothes clean in lukewarm water—lighten washday labor." Problems like these, together with newest laundry *methods*, are discussed in a free booklet—*Rescuing Precious Hours*. Send a post card to Winifred S. Carter, Dept. NY-59, Box 1801, Cincinnati, Ohio.



## The largest-selling soap in the world

THE SCHWEINLER PRESS, NEW YORK